Aristotle's *Sophistical Refutations*: A Translation with Introduction, Commentary, and Appendices

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ABSTRACT

Aristotle's *Sophistical Refutations* (SE) investigates the five devices which sophists employ to appear wise in dialogue. The sophist's primary device is the sophistical refutation which is a particular kind of fallacy. A sophistical refutation is a merely apparent refutation. Thus, the fallacy has two causes: the "*causa apparentiae*" and the *"causa non existentiae."* A genuine refutation is a syllogism based on an interlocutor's opinions that leads necessarily to a conclusion which contradicts some other established position of the interlocutor. The sophist desires especially the apparent refutation of his opponent because the greatest glory follows upon seeming to expose the ultimate defect in opponent's understanding, a contradiction. The SE neither accounts for every cause of error nor every type of false reasoning; "*ad*" arguments like *ad baculum* or *ad hominem* are not in investigated in the SE because they are not apparent refutations.

After a description of the SE's subject matter, the dissertation's introduction locates the role of the SE in Aristotle's *Organon* and explains why a dialectician would investigate and untie sophisms. Sophistic is the sham portion of the dialectic which is a

universal art (τέχνη) of syllogizing from endoxes to the contradiction of an interlocutor. Unlike principles of demonstrations, endoxes are premises that are in accord "with the expectation (ἔνδοξος) of all or most or the wise, and of all the latter or most or of the most knowing." They do not need to be certain or true; instead, they must be acceptable to a dialectical opponent. Dialecticians derive endoxes from dialectical places (τόποι), i.e., extrinsic and most universal principles which usually affirm relations between logical intentions and may be employed in any given subject matter. Sophists use sophistical places which may be expressed as universal propositions and provide the foundation for the apparent reasonability of the sophistical refutations. That said, unlike dialectical places, Aristotle does not present sophistical places as universal conditional statements of logical intentions; they are presented as common distinctions—such as the distinction between the different senses of a word—that a sophist may exploit to produce a sophistical refutation. A dialectician will study sophistic for the same reasons he will learn dialectic; it is useful for exercise, conversation, and in the philosophical sciences. Moreover, investigating sophisms facilitates appreciation of distinctions that are fundamental to Aristotelian philosophy, protects the philosopher from error, and preserves his reputation.

Although translation of Aristotelian logical works is difficult—especially one which contains many examples of linguistic fallacies—the dissertation provides a faithful and consistent translation of the treatise. The line by line commentary contains

explanation of the order, purpose, and meaning of the text, clarification of Aristotle's difficult examples, discussion of scholarly treatment of controversial passages, and references to other relevant passages in the *Organon*.

The dissertation ends with two appendices to provide a thorough treatment of Aristotle's two most deceptive fallacies: the fallacy of equivocation and the fallacy of the accident. The first appendix locates equivocation as a kind of proper naming (as opposed to figurative) and offers an original interpretation of Aristotle's argument for the necessity of equivocation based on his understanding of how we name. Afterward, the appendix unfolds the nature and solution to the fallacy, explains Aristotle's places (τόποι) for detecting equivocation, and categorizes the kinds of equivocation.

The second appendix unfolds a unique and overlooked explanation of the fallacy of the accident that allows Aristotle to be read consistently, distinguishes the fallacy from the other fallacies, and accounts for Aristotle's examples. The fallacy of the accident occurs when a middle term's connection to one extreme term is accidental to its connection to the other. The appendix locates the fallacy through a reduction of all fallacies outside of speech to ignorance of refutation, offers four distinct meanings of 'accident' in Aristotle, shows which meaning Aristotle attributes to the fallacy, divides the fallacy into three species, and answers objections to its explanation.

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Abbreviations

Works of Aristotle

APo	Posterior Analytics
APr	Prior Analytics
Cat	Categories
DeAn	On the Soul
DeCa	On the Heavens
DeIn	On Interpretation
EE	Eudemian Ethics
GA	On the Generation of Animals
GC	On Coming-to-be and Passing Away
HA	History of Animals
Met	Metaphysics
NE	Nicomachean Ethics
PA	Parts of Animals
Phys	Physics
Poet	Poetics
Pol	Politics
Rhet	Rhetoric
SE	Sophistical Refutations
Top	Topics

Works of Other Authors

DK	1951-1952. *Die Fragmente der Vorsokratiker*. Edited by H. Diels and W. Kranz. Berli: Weidmann.
LS	1958. *A Greek-English Lexicon*. H. Liddel & R. Scott. 9th edition revised by H. Jones. Oxford: Clarendon Press

Introduction I: Literature Review and Subject Matter

I.I Literature Review

When one of the company said to him, "Convince me that logic is necessary,"
"Would you have me demonstrate it to you?" he said.
"Yes."
"Then I must use a demonstrative form of argument."
"Granted."
"And how will you know, then whether my arguments mislead you?" On this, the man being silent, Epictetus said, "You see that even by your own confession, logic is necessary; since without it, you cannot even learn whether it is necessary or not."
-Epictetus, Discourses

Aristotle's list of thirteen sophistical refutations is still a prevalent account—with a few additions or omissions—of logical fallacies.[1] If one peruses most logic textbooks, he will find contained in the list of fallacies, Aristotle's thirteen—or in some twelve[2]—sophistical refutations.[3] His taxonomy of fallacies was orignally compiled in Aristotle's *Sophistical Refutations* over three hundred years before Christ. Despite the work's longevity, we know little about its immediate influence. It is clear that Andronicus of Rhodes republished the *Sophistical Refutations* in the first century[4] and that Galen wrote a small commentary on fallacies inside of speech, known as his *De Captionibus*.[5] Still,

[1] Cf. Hamblin, 1970, pp. 9-13.
[2] Scholars debate whether there are thirteen or twelve fallacies in Aristotle's list. The fallacy of composition and the fallacy of division are often considered to be one fallacy. Again, sometimes the fallacy of ignorance of refutation is not considered to be part of the list but is rather treated as a super category.
[3] Cf. for instance, Oesterle, 1963, pp. 253-259, Kreeft, 2008, pp. 69-70, McInerny, 2004, pp. 104-129.
[4] Cf. Hamblin, 1970, p. 89.
[5] For those interested in the evidence for the chronology of this work relative to other of Galen's works cf. Ebbesen I, 1981, p. 236.

outside of what is otherwise a small number of fragments and references, we are mostly ignorant of the response to and commentary on the *Sophistical Refutations* during the first fourteen hundred years of its existence.[6]

Modern commentary is almost as limited. Although there has been some revival of interest in the philosopher's thoughts about true argument, scholars have generally devoted little attention to the *Sophistical Refutations*. Scott Schreiber argues that the dearth of scholarship on the treatise is a result of the modern English analytic logical tradition's tendency to classify all fallacies as dependent on speech—something that Aristotle repeatedly denies. Perhaps, in the revival of the study of Aristotelian logic, it was most natural for scholarship to begin with the *Analytics* and related works before moving to the *Topics*. The *Sophistical Refutations* may have been merely last in line. Indeed, it seems reasonable to study what makes an argument correct before considering ways it may go wrong. Whatever the reason for the lack of attention given to the treatise, recent scholarship on the *Sophistical Refutations* is relatively small.

I have undertaken to treat the *Sophistical Refutations* as a whole through a translation, introduction, commentary, and appendices. Such a holistic endeavor both narrows and broadens relevant secondary literature. On the one hand, since a holistic treatment of the *Sophistical Refutations* involves an articulation of the work's function in Aristotle's *Organon*, the amount of broadly relevant contemporary scholarship almost

[6] Cf. Ebbesen I, 1981, pp. 18-51.

exceeds readability. On the other hand, there may be little to almost nothing written on the specific content of any given chapter of the treatise. For this reason, I have taken into account literature from ancient, medieval, and modern periods. What follows is a review of the more holistic treatments of the *Sophistical Refutations* that have informed my endeavor, beginning with the ancient literature, then the Medieval, and finally modern or contemporary scholarship.

Ancient Literature

The oldest preserved work on the *Sophistical Refutations* is Galen's treatment of the fallacies from speech in *De Captionibus*. The work is a lengthy justification of Aristotle's claim for a complete division of all fallacies from speech (SE 165b24-30) as well as an argument for the superiority of Aristotle's classification over Stoic versions of the fallacies from speech. The treatise has informed my understanding of Aristotle's division of the fallacies from speech. However, I do not address Aristotle's classification of fallacies in relation to that of the Stoics.

While there is little available from Aristotle's immediate successors on the *Sophistical Refutations*, I have considered one of his predecessors to help shed light on the treatise—Plato. The Platonic dialogues often foreshadow doctrine in the *Sophistical Refutations*. In fact, Aristotle uses examples of sophisms taken almost word for word out of various dialogues. Moreover, both philosophers considered likeness to be a cause of error, and both emphasized the importance of a good beginning in philosophical

inquiry. I have not, however, undertaken to compare their notions of sophism or refutation. Louis Andre Dorion has already undertaken such a treatment in the introduction to his commentary on the *Sophistical Refutations*.[7]

I have also consulted ancient commentators on Aristotle in specific areas related to the *Sophistical Refutations.* For instance, Alexander of Aphrodisias' commentary on Aristotle's *Topics* has influenced my understanding of Aristotle's dialectical place, which is necessary for my articulation of sophistical place. Again, the Grammarian, John Philoponus, helped spur my treatement of Aristotle's fallacy of the accident in relation to Aristotle's "said of all" principle—though I do not side with Philoponus' solution to the fallacy based on ambiguous quantifiers.[8]

Medieval Literature

I have sought guidance from medieval scholars in interpreting the treatise for a number of reasons. Principally, I found that the medieval commentators of the *Sophistical Refutations* are illuminating—often where modern scholarship is not.[9] Since scholarship on the treatise is so limited, sometimes essential issues have not been addressed by modern scholarship. The notion of place in the treatise and how it relates

[7] Cf. Dorion, 1995, pp. 37-58. Cf. also Ebbesen, 2011, pp. 88-94.
[8] Cf. Philoponus, 1905, pp. 11-16. Cf. Bäck, 1987, pp. 131-146.
[9] As, for instance, Albert the Great's account of how fallacies outside of speech may involve ambiguous language or the medievals' explanation of Aristotle's division of the fallacies outside of speech or (ps) Thomas Aquinas' three species of the fallacy of accident. Other scholars have also used primarily medieval interpretations of the *Sophistical Refutations* as guides in understanding the *Sophistical Refutations*: cf. Gelber, 1987, pp. 110-145 or Ebbesen, 2011, pp. 75-94.

to the notion of place in the *Topics* has been entirely untouched by modern scholarship. The medievals, however, did not hesitate to bring to light sophistical places.[10] One might add that many prevelant interpretations of the *Sophistical Refutations* originated in Medieval scholarship. For instance, the analysis of sophisms into the cause of nonexistence and the cause of appearance—although found in modern scholarship—has its most detailed account in Albert the Great's commentary.

Many Latin authors refer to a text of "Alexander." There are a couple of versions of Greek texts at various stages of development. It was assumed that these texts are a commentary on the *Sophistical Refutations* by Alexander of Aphrodisias. However, positive evidence showing Alexander to be the original author is limited.[11] The extant Greek work, previously attributed to Alexander, has been reasonably attributed to the Byzantine Michael of Ephesus in the thirteenth century by Wallies.[12] The chronological order and development of the various (ps) Alexander texts is obscure. Sten Ebbesen argues for a priority between them in his published doctoral dissertation.[13] I will cite the most complete version of the work—as has become the standard—as that of Michael of Ephesus. The work is a complete commentary on the *Sophistical Refutations*. Ephesus helpfully points out apparent difficulties and their resolution within the text. For

[10] Cf. (ps) Aquinas, 1976, c. 4.
[11] Cf. Ebbesen III, 1981, pp. 242-244.
[12] Cf. A.C. Lloyd, 1986, pp. 231-233
[13] Cf. Ebbesen III, 1981, pp. 70-77.

instance, he notes that nothing prevents an argument from committing many fallacies, an observation which explains why two similar examples are given for different fallacies.

Albert the Great's commentary on the *Sophistical Refutations* is one of the most extensive available. It is analytical insofar as it resolves the various sophistical refutations into their causes. Although the commentary at times suffers from a lack of clarity, it is characteristic of Albert to explain both why each sophistical refutation fails to be a genuine refutation, and why each sophistical refutation appears to be a refutation. As a result, his analysis of each of Aristotle's examples is singularly illuminating.

It is a disputed question whether or not Thomas Aquinas wrote the *De Fallaciis*.[14] I do not consider the work to be authentic to Aquinas based merely on certain eye tests. The work does not have the structure or the rigor of a standard commentary by Aquinas on Aristotle. Moreover, the author sometimes makes claims that I find hard to believe Saint Thomas—during any period of his life—would say. The work has the virtue of discussing topics that are not discussed, or at least not discussed in as much detail, in other commentaries. The work considers, for instance, the fallacy of what is simply and what is in a certain respect as based on what is perfect and imperfect in

[14] On the attribution of this text to Thomas Aquinas and other questions, cf. H. F. Dondaine's criticism within: (ps) Aquinas, 1976, pp. 385-400.

things. Moreover, the author characteristically divides the thirteen fallacies into subspecies.

In any case, I have otherwise used Thomas Aquinas, particularly his logical commentaries on the *Posterior Analytics* and *De Interpretatione*. Aquinas offers a unique account of Aristotle's logic from a synoptic perspective, which helps locate the *Sophistical Refutations* among the other works of the Organon, although I do not ultimately agree with Aquinas' strict articulation of the function of the *Sophistical Refutations* in comparison to other works.

On a more limited basis, I have consulted additional Latin authors. Both the Italian jurist, Julius Pacius, and the Italian Jesuit, Sylvester Maurus, provide full-length glosses of the treatise. I have used Pacius merely as a foil to my interpretation of the text. Sylvester Maurus has a gift for clarity. Sylvester has the clearest and most thorough account of Aristotle's claim that his division of fallacies from speech can be justified both through induction and syllogism. Moreover, he provides the best account of why the fallacy of amphiboly must be distinct from the fallacy of equivocation. Moreover, I have consulted William of Ockham's analysis of the fallacy of the accident and his treatment of the *dictum de omni* controversy which touches on Aristotle's primary division of fallacies inside and outside of speech.

Modern and Contemporary Literature

The last English translation and commentary done on the *Sophistical Refutations* is that of Edward Poste in 1866. I have found Poste's commentary useful in pointing out texts from Aristotle's corpus, which shed light on the *Sophistical Refutations*. Moreover, he often gives useful analysis on the translation of specific words or phrases. Still, Poste unfortunately does not seem to have taken Aristotle seriously; he is all too ready to draw attention to superficial contradictions in the text, and then to let them stand as a mere result of Aristotle's lack of "accuracy."[15]

Sten Ebbesen's doctoral dissertation is a systematic study on who the author of (ps) Alexander's commentary was and anything and everything else related to the *Sophistic Refutations*. Although Ebbesen rightly worries that readers of his work may repeatedly state: μέγα βιβλίον μέγα κακόν, the work nevertheless provides a stunning breadth of interpretations of the *Sophistical Refutations*. The work sometimes lacks a clear order and unity. More recently, Ebbesen has published more accessible and unified articles on the middle chapters of the *Sophistical Refutations*

The most thorough treatment of Aristotle's *Sophistical Refutations* written in the last hundred years is Louis Andre Dorion's French translation and commentary. In his introduction, Dorion argues that the *Sophistical Refutations* is directed against the Megarians and not the men we usually think of as sophists—such as Protagoras,

[15] Cf. Poste, 1866, n. 2, p. 145 and SE 176b36-40 with note *ad loc*. Cf. also Poste, 1866, n. 14, p. 158; n. 9, p 157. Cf. also, Appendix II: Fallacy of the Accident.

Hippias, and Gorgias— because these well-known "sophists" did not practice eristic refutation. Rachel Barney has argued that Dorion overstates this central thesis in his introduction.[16] I have not considered the question in my commentary because, while interesting, this historical question is not central to the subject matter of the *Sophistical Refutations*. As Dorion himself notes, the treatise is not a polemic against a particular group of men's methods of debating; it is far more universal in scope. The *Sophistical Refutations* is about the tools of the sophist simply—such a treatise has merit outside the time and place of any particular sophists. That said, Dorion's translation and line by line commentary on the text itself is an indispensable resource. He has also published two articles related to the *Sophistical Refutations*: one on the relationship between Socratic and Aristotelian refutation, and another on the relationship between dialectic and eristic in the *Sophistical Refutations*.

The only contemporary English monograph devoted solely to the *Sophistical Refutations* is Schreiber's *Aristotle on False Reasoning*. Schreiber's goal is to show the philosophical justification for Aristotle's taxonomy of fallacies; he argues that just as the fallacies outside of speech are based on mistakes about language, so too the fallacies from speech are based on errors about the world—hence his subtitle: Language and the World in the *Sophistical Refutations*. He completes his goal through a close treatment of Aristotle's examples. I disagree with some of Schreiber's central positions taken on the

[16] Cf. Barney, 1998, pp. 111-120.

text.[17] Nonetheless, his analyses of particular portions of the treatise are often the most persuasive accounts of Aristotle available.[18]

Hamblin's extensive book, *Fallacies*, is not devoted principally to the *Sophistical Refutations*, but instead is a treatment of fallacies in general. Hamblin, nevertheless, devotes a significant portion of his work to the *Sophistical Refutations* because of its dominant influence on the understanding of fallacies. Hamblin's work is useful, in part, by manifesting particular ways in which the *Sophistical Refutations* takes from Platonic dialogues. Hamblin also has a clear account of the development of the notion of fallacy from the time of Aristotle. This account is essential to understanding the subject matter of the *Sophistical Refutations*.

In my introduction's discussion of dialectic and the notion of dialectical place, I have relied heavily on Robin Smith's translation and commentary on Books I and VIII of the *Topics*. I have also used P. Slomkowski's monograph *Aristotle's Topics*, although I ultimately move away from Slomkowski's position and side with Alexander of Aphrodisias understanding that dialectical places are not premises but principles of premises. I have also consulted the sections concerning dialectic and art in C.D.C. Reeve's recent edition of Aristotle's *Metaphysics*, Yvan Pelletier's French monograph *La*

[17] For instance, I disagree with Schreiber's position that Aristotle held one can avoid all error by changing twelve false beliefs. Cf. Schreiber, 2003, p. xiii. I will say more on this point in my introduction below.
[18] For instance, Schreiber has the most reasonable account of why Aristotle excludes the use of synonymous names in contradiction. Cf. Schreiber, 2003, pp. 88-90. Moreover, we are more or less in agreement concerning how Aristotle divides the fallacies inside of speech. Cf. Schreiber, 2003, pp. 57-58.

Dialectique Aristotelicienne, and Anthony Andres' dissertation *A Thomistic Definition of the Dialectical Topica* for the notion of second or logical intentions.

This review of literature does not exhaust the texts I have consulted nor the works that I will reference. It does, however, give some introduction to the influential literature in my own work on the *Sophistical Refutations*, and on the *Sophistical Refutations* in general. Many other scholars have treated some portion of the *Sophistical Refutations*. For instance, on any given fallacy, there are often numerous authors—medieval and contemporary—who have analyzed Aristotle's treatment. I have consulted many, if not all, of their analyses. Other authors that I have used in these more particular regards I have indicated in my notes and bibliography.

English translations of the work include the old Oxford translation by Sir Arthur Wallace Pickard-Cambridge, which remains one of the best translations available of the *Sophistical Refutations*. Peiter Hapser's recent translation of the treatise is the best. I have also consulted E. S. Forster's translation from the Loeb Classical Library. Poste's translation of the *Sophistical Refutations* has been more accurately described as a "paraphrase,"[19] and I have rarely used his edition to inform my own translation of the work.

I have based my translation of the text on Ross's critical edition of the *Topics* and the *Sophistical Refutations*. At times, I have sided with other editors or translators against

[19] Cf. Forster, 1995, p. 8.

Ross's Greek text. Such cases, I have indicated in the commentary. I have used the pagination from Ross's critical apparatus to indicate the manuscripts that form a basis for my deviations from Ross. As is necessary in translation, The Bekker reference numbers are approximate and do not always perfectly mirror the Greek. In my translation, I have tried to strike a balance between translating into fluent English and providing a literal translation that leaves interpretation to the reader. In instances where any variation from the Greek's syntax and vocabulary tilts the translation toward one interpretation over another, I stayed as close as possible to the original Greek. In instances where it seemed to me that some variation of the original Greek syntax could still render Aristotle's intended meaning, I have not hesitated to put the phrase into more readable English.

One can find the commentary on each chapter at the after the translation. The commentary is intended to provide both interpretation of the text itself and to provide references to other relevant passages of Aristotle. I have included more thorough discussion of the fallacy of the accident and the fallacy of equivocation as appendices. The notes and appendices are not intended to explain Aristotle by using the "language" of the prevalent symbolic logic. Instead, they are intended to explain Aristotle as I think he would explain himself. Naturally, this dissertation only touches upon many topics that could be treated more fully. Finally, I have included a glossary to indicate how I have translated certain central terms.

I.II Subject Matter

Yet at the same time, they should have said something about error. For this is more proper to animals, and the soul continues in this for more time.
-Aristotle *De Anima*

The Meaning of Fallacy

Aristotle, while arguing against his predecessors' accounts of soul, criticizes their failure to account for error (DeAn 427a16-b2). The universal experience of "getting it wrong" must have a place in any complete epistemology. *Sophistical Refutations* may be considered as Aristotle's account of error insofar as it aims to explain some logical causes of error. Accordingly, one way to understand the subject matter of this treatise is to approach it through its relation to the meaning of error.

Aristotle defines error as stating "what is as what is not, and what is not as what is" (DeIn 17a26). The word "error" is derived from the Latin word *errorem*, which means a wandering.[20] In fact, the English word "error" originally meant "wander."[21] Interestingly, Christ even uses "wander" as a figure of error while reproving the Sadducees: "You wander (πλανᾶσθε), not knowing the Scriptures, nor the power of God."[22] What can this etymology teach us about error? The etymology suggests that just as wandering is a certain disordered physical movement, so also is error a certain

[20] We have the same etymology in the Greek word πλάνη. The planets were considered by the ancients to be nothing other than the stars that *wandered* around the twelve constellations of the Zodiac.
[21] Cf. Onions I, 1973, p. 678.
[22] Matthew 22:29. Cf. also Mark 12:24.

disordered discourse in our reason or the result of a disordered discourse in our reason. In other words, only by proceeding in an orderly way, can we proceed without error. For this reason, Aristotle places heavy emphasis on making good beginnings and proceeding in an orderly fashion. For, as he says, the beginning is more than half of the whole.[23]

In contrast, the word "mistake" has an etymology that suggests that error results from missing some distinction. The word "mistake" is derived from the English "miss take." Whenever things closely resemble one another, it is easy to *take* one for the other or to make a "mistake." The mind naturally aims at the truth (Meta 980a20 and Rhet 1355a20ff), although it sometimes misses the mark for something that resembles it closely. Thus, Aristotle establishes that likeness is a general cause of error (SE 164a26-b24). If we see the likeness between two things without seeing their distinction, we may mistakenly take one for the other. A failure to make distinctions is *the* root of Aristotle's explanation of error (SE 169a21-b18).

[23] Cf. NE 1098b. Cf. also SE 164a25 and note *ad loc* for a full discussion of Aristotle's understanding of the necessity of order in philosophy. St Thomas Aquinas also notes this connection between error and making a good beginning in the Proemium to his commentary on the *Posterior Analytics*: "But the third process of reason is that in which reason fails to reach a truth because some principle which should have been observed in reasoning was defective," Cf. Berquist, 2007, p. 2. This also manifests the reason why Thomas gives his order of the fruit of logic: to proceed orderly, easily, and without error. Cf. Berquist, 2007, p. 1. One can proceed without error only insofar as he proceeds in an orderly fashion. Cf. Maurer, 1949, pp. 25-26.

The word fallacy is not just another name for error.[24] The word fallacy is related to the words error and mistake, but a fallacy is not strictly speaking either. Aristotle describes fallacies in the treatise as the ways of deceiving one's interlocutor into thinking that he has been refuted.[25] This description is to describe fallacy in the specific context of the *Sophistical Refutations*. More generally, a fallacy is a way of making a mistake or error. The fallacy of equivocation, for instance, does not name any particular mistake in thinking but a way of making a mistake in thinking. Aristotle's subject matter, however, is not the fallacy as such but a particular kind of fallacy: the sophistical refutation.

What is a Sophistical Refutation?

The *Sophistical Refutations* does not treat every kind of fallacy.[26] Its principal subject matter is the thirteen ways of making sophistical refutations, and not every fallacy, as we shall see, is a way of making a sophistical refutation. A sophistical refutation is a more limited notion. Nevertheless, it is not the only subject of the

[24] Bradley H. Dowden, for instance, claims, "Errors in reasoning are called fallacies." Cf. Dowden, 1993, p. 186.

[25] Cf., for example, SE 165b24.

[26] Some commentators seem to have missed the narrow scope of the treatise. Schreiber claims: "He says that there are twelve ways and only twelve ways by which false *arguments* can appear to be persuasive," and "Aristotle believes that he has uncovered the 12 false beliefs about language and the world whose correction will protect one from being taken in by false *arguments*." Cf. Schreiber, 2003, p. xiii, emphasis my own. (Schreiber holds that there are really twelve and not thirteen fallacies in the *Sophistical Refutations* by claiming that the fallacy of composition is the same fallacy as that of division.) On the other end of the spectrum, Davies holds that Aristotle's fallacies are mere historical accident: "The study of fallacies is an exercise in folklore." For "the list of 13 sophistical refutations we find in the fourth and fifth chapters are just examples of some tricks that (fourth century Athenian) sophists got up to." Cf. Davies, 2012, pp. 12-15.

Sophistical Refutations. The treatise has five subjects corresponding to various tools that sophists use to appear wise (SE 165b12-23). The principal tool is the sophistical refutation, and therefore it is the chief subject of Aristotle's treatise. Aristotle says that sophistical refutations are what "appear to be refutations, but are fallacies and not refutations."[27] One can understand sophistical refutation through its positive counterpart, the sound refutation. A refutation is defined as a "syllogism with a contradiction of the conclusion."[28] To understand the *Sophistical Refutations* one ought to consider Aristotle's notions of syllogism, contradiction, and sophism.

Refutation as a Syllogism

Aristotle categorizes syllogism as one of four kinds of arguments (λόγοι): induction, syllogism, example, and enthymeme.[29] Although the concept of argument is fundamental to any logical work, it is seldom examined. According to its genus, argument is a form of speech. This speech is a tool formed by the mind to reason, by which we come to know or suppose that a statement is true or false or probable or improbable because of other statements that we know or suppose are true or false or probable or improbable. Through argument the mind is led from what is known, or

[27] τῶν φαινομένων μὲν ἐλέγχων, ὄντων δὲ παραλογισμῶν ἀλλ' οὐκ ἐλέγχων (SE 164a20-21).
[28] ἔλεγχος δὲ συλλογισμὸς μετ' ἀντιφάσεως τοῦ συμπεράσματος (SE 165a2-3).
[29] Cf. APo 71a5-11, There is some question as to whether or not the example and enthymeme are just syllogism and induction used in rhetoric as Aristotle appears to be saying in this passage or that they are in fact distinct kinds of arguments as appears to be the case elsewhere. Cf. Rhet 1457b26-30, 1356a36-1357a22 and 1357b25-1358a2; APr 68b37-60a13 and 70a3-38. Whatever the status of enthymeme and example is, it is clear that the syllogism is not the only kind of argument. For a more complete discussion of the argument from example, see SE 164a25-26 note *ad loc.*

known to be probable, to other things which were previously unknown, or unknown to be probable.

In the *Prior Analytics*, Aristotle defines a syllogism as "an argument (λόγος)[30] in which, when certain [premises] have been laid down, something else, other than what was laid down, follows by necessity by those [premises] being so." Aristotle then adds, "by, 'by those [premises] being so,' I mean that they happen through them, and by 'it happens through them,' that no extrinsic term is needed for the necessity to arise."[31] In other words, the definition does not imply that the conclusion is true but that the conclusion must be true if the premises are true and this necessity must be seen simply by what is laid down in the premises. The syllogism expresses a necessary intelligible connection between the premises and the conclusion.[32] Aristotle gives a similar definition in the *Sophistical Refutations* (165a1), and a virtually identical definition in the *Topics* (100a25-27).

Two other elements in the definition are worth noting. First, there has to be a number of things—meaning premises—laid down. In all Aristotle's definitions of

[30] Alexander of Aphrodisias understood λόγος here to mean speech or utterance. Cf. Van Ophuijsen 7.15-25, 2001, p. 9. I take it that both speech and argument are genera of the syllogism with argument being the more proximate genus.

[31] συλλογισμὸς δέ ἐστι λόγος ἐν ᾧ τεθέντων τινῶν ἕτερόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει τῷ ταῦτα εἶναι. λέγω δὲ τῷ ταῦτα εἶναι τὸ διὰ ταῦτα συμβαίνειν, τὸ δὲ διὰ ταῦτα συμβαίνειν τὸ μηδενὸς ἔξωθεν ὅρου προσδεῖν πρὸς τὸ γενέσθαι τὸ ἀναγκαῖον (APr 24b18-22).

[32] Cf. Byrne, 1997, pp. 31-32. Byrne's account of Aristotle's definition falls within a thorough account of Aristotle's understanding of syllogism including an account of its figures and modes. Cf. Byrne 1997, pp. 29-55.

syllogism, he uses the plural: τεθέντων. Alexander of Aphrodisias points out that the use of the plural implies that a syllogism must consist of at least two premises.[33] According to Aristotle, nothing new results from necessity from a single premise. This requirement excludes the possibility that such reasonings as the following are syllogisms: "Since no man is green, then no green thing is a man" or "Since you are breathing, you are therefore alive." The former "reasoning" is not a syllogism, but a conversion—it simply switches the position of the subject and the predicate—and the quasi-conclusion does not say anything more than its premise. The latter "reasoning" needs to have a missing premise supplied to be a syllogism, but as it stands is not a complete argument (cf. APr 40b35-36 and 53b16-20). A second essential requirement of the syllogism is that the "something else" that "follows by necessity"—meaning the conclusion—must be different from the premises that constitute the syllogism. This requirement implies that not every valid deduction is a syllogism because a deduction can assume the conclusion in its premises whereas a syllogism cannot.

The definition of refutation given, "syllogism with a contradiction of the conclusion" (SE 165a2-3), at first glance may be confusing because it appears to say that a refutation is an argument whose conclusion is immediately contradicted and is therefore shown to be false. What Aristotle means, however, is that the conclusion contradicts some other statement such that the conclusion makes manifest the falsity of

[33] Cf. Van Ophuijsen 8.15, 2001, p. 9.

the other statement, or at least that it is not in harmony with the syllogism's premises. In the context of the *Sophistical Refutations*, the other statement in contradiction to the conclusion is held by one's interlocutor. A syllogism is a refutation then insofar as its conclusion is an affirmation of what the interlocutor denies or vice versa.

In the *Sophistical Refutations* and *Topics*, Aristotle speaks of refutation as coming about in the context of a particular form of dialectical disputation. Both works are concerned with methods used in one-on-one debates between interlocutors aiming at defeating one another through refutation or at least its appearance. In the disputation, the two key competitors are the questioner and the answerer. The interlocutors establish a specific problem for disputation, taking opposing sides. The questioner then seeks to build a syllogism using as premises only the responses of the answerer that concludes in a contradiction of the answerer's original expressed opinion on the established problem. The premises of this form of dialectical argument are originally put forward as questions that one can answer with a simple 'yes' or 'no.' After failing to achieve outright refutation of the answerer's original position, the questioner may try to achieve lesser forms of victory. The answerer seeks to answer each question while avoiding yielding answers that the questioner may use as premises that will lead to his contradiction. Book VIII of the *Topics* presupposes various rules of this disputation that allow either of the interlocutors to call foul. The whole of the *Topics* and the *Sophistical*

Refutations presupposes this organized form of competitive intellectual exercise as the context of discussing refutation and sophistical refutation.[34]

Refutation as Involving Contradiction

Contradiction is part of the meaning of refutation. As the treatise makes clear, the notion of contradiction can be slippery. Contradiction is one of the four kinds of opposition (Cat 11ab15-13b37). In any two contradictory statements, "one opposite must always be true, while the other must always be false."[35] Unlike the opposition of contraries or sub-contraries, if two statements are in contradiction to one another there is no middle ground, both cannot be true, and both cannot be false.

For this kind of opposition to come about there must be a specific relation between two "parts." In one part of the contradiction, the affirmation joins a predicate with a subject; in the other part, the negation disjoins these same terms (DeIn 72a11-12). Aristotle clarifies in *On Interpretation*:

> Let this be a contradiction: an affirmation and a denial which are opposite; I call [statements] opposite when they affirm and deny the same thing of the same thing, not equivocally, together with all other [qualifications] we specify in addition regarding sophistical difficulties.[36]

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[34] This is not to say that the contents of the *Topics* and the *Sophistical Refutations* cannot be used outside this context. Most of the contents will be useful in any form of dialogue. The context does mean that Aristotle will take certain things for granted in his treatment of dialectic and sophistic, such as an audience of the disputation. For a more complete articulation of this practice of Aristotelian dialectical disputation, see Smith, 1997, pp. xiii-xxi and Slomkowski, 1997, pp. 9-42

[35] ἀναγκαῖον ἀεὶ τὸ μὲν [ἐναντίον] ἀληθὲς τὸ δὲ ψεῦδος αὐτῶν εἶναι (Cat 13b2-3).

[36] καὶ ἔστω ἀντίφασις τοῦτο, κατάφασις καὶ ἀπόφασις αἱ ἀντικείμεναι· λέγω δὲ ἀντικεῖσθαι τὴν τοῦ αὐτοῦ κατὰ τοῦ αὐτοῦ μὴ ὁμωνύμως δέ, καὶ ὅσα ἄλλα τῶν τοιούτων προσδιοριζόμεθα πρὸς τὰς σοφιστικὰς ἐνοχλήσεις (DeIn 17a33-37).

The affirmation and denial are opposed as contradictories only when the very same thing is affirmed or denied of the very same thing. That is, the statement's subject and predicate must be the same as well as their quantity. For example, "No man is mortal" is not the contradiction of "Every man is mortal." The contradiction of "Every man is mortal" is "Not every man is mortal" or in other words "Some man is not mortal." Contradiction is the unequivocal opposition of an affirmation and a denial of the same thing of one and the same thing.

What does Aristotle mean by "concerning the sophistical difficulties?" Grappling with the various forms of sophistical refutation leads Aristotle to specify the nature of a true refutation and therefore contradiction more fully:

> Refutation is [a syllogism to] the contradiction of one and the same thing [held by an interlocutor], not of the name but of the thing, and not of the synonymous name,[37] but of the same name, [in which the conclusion follows] from the premises that are granted by necessity (and does not assume [among the premises] the original problem), [where the contradiction is] according to the same thing,[38] in relation to the same thing, in the same manner, at the same time.[39]

In the passage quoted above, Aristotle lists some requirements for a true syllogism and others for a true contradiction. Concerning contradiction, not only must the predicate

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[37] The Greek word which I translate as synonymous here is συνωνύμος. The same word is defined as univocal in Cat 1a5. However, the word can also be seen to have its transliteral meaning as evidenced by Rhet 1405a1.

[38] For Aristotle's meaning of according to the same (κατὰ ταὐτὸ), cf. Appendix II: The Fallacy of the Accident.

[39] ἔλεγχος μὲν γάρ ἐστιν ἀντίφασις τοῦ αὐτοῦ καὶ ἑνός, μὴ ὀνόματος ἀλλὰ πράγματος, καὶ ὀνόματος μὴ συνωνύμου ἀλλὰ τοῦ αὐτοῦ, ἐκ τῶν δοθέντων ἐξ ἀνάγκης μὴ συναριθμουμένου τοῦ ἐν ἀρχῇ, κατὰ ταὐτὸ καὶ πρὸς ταὐτὸ καὶ ὡσαύτως καὶ ἐν τῷ αὐτῷ χρόνῳ (SE 167a22-26).

and the subject of the two contradictory statements be the same, but the predicate must be affirmed or denied of the same subject, in relation to the same thing, at the same time, in the same manner, and with the same terms. There is no contradiction, for instance, in saying that four is both half and is not half as long as one makes these affirmations in relation to different numbers. In its full sense, contradiction is the univocal and synonymous opposition between an affirmation and denial of the same thing with the same name, according to the same thing, in relation to the same thing, at the same time, and in the same manner.

In sum, a sound refutation is an argument in which certain premises based on the opinions of one's interlocutor are laid down from which a conclusion follows necessarily which is in genuine contradiction with some other established position of the interlocutor. By genuine contradiction, Aristotle means that contradiction affirms the same predicate of the same subject that the answerer denies or vice versa. They must apply at the same time, they must be said in the same respect, and if the subject or the predicate is in the category of relation, they must be said relative to the same thing. If the questioner forces the answerer into making statements that meet all of these requirements, then the answerer is genuinely refuted; two of his conceded positions are not in harmony with one another. Either one of the premises that he has accepted is false or his original position on the established problem is false. One way or another he is mistaken.

Refutation as Sophistical

Aristotle's characterization of sophistical refutations as "what appear to be refutations, but are fallacies and not refutations" (SE 164a20-23), makes clear that what makes a refutation sophistical is twofold. First, the argument must fail to be an actual refutation. Second, the argument must in some way appear to be a real refutation.[40] Aristotle identifies the cause of the deception as the likeness that the sophism has to genuine refutation (SE 164a25-26). Thus, appearance is essentially connected with the instrument of the sophist, the sophistical refutation. The notion of appearance not only enables Aristotle to define the sophistical refutation, but it also becomes a principle of distinction among sophisms: there will be as many different sophistical refutations as there are appearances of actual refutations. The number of sophisms, in short, is determined by the number of ways in which a speech which is not a syllogism may appear to be a syllogism.

Albert the Great will help us bring these two requirements to light. Each sophistical refutation has two causes: its "*causa apparentiae*" and "*causa non existentiae.*"[41]

[40] One might doubt whether or not it is possible for an argument to appear to bring about a refutation of one's interlocutor while in fact not bringing about this refutation. Accordingly, Aristotle does not assume that this kind of argument exists. Unlike Aristotle's method in other disciplines, in the discipline of sophistic, Aristotle sets out to establish that the subject matter exists. Such arguments exist through likeness which is a universal cause of error. For, as we noted earlier, the etymology of mistake suggests that failure to make a distinction is at the root of error, but we can fail to make a distinction between two things when they have a certain likeness to one another. No one would ever mistake the salt for the pepper, but one may mistake the salt for the sugar. Cf. SE 164a24-165a20 and notes *ad loc*.
[41] Cf. Albertus Magnus I, 1890, tr. 2, c. 2, p. 542a.

Untying any sophism requires that one point out the effect of each of these two causes: why does it seem to be a refutation and why is it not a true refutation? Answering these questions is the heart of Aristotle's "loosening up" of the knots tied by a sophistical refutation.

An example may help us come to terms with Albert's understanding of the causes of a sophistical refutation. In the case of the fallacy of equivocation, the *"causa apparentiae"* is a *"unitatem vocis."* For "the unity of the word (*vox*) is the cause of appearance."[42] Take the following argument: happiness is life's end, but life's end is death, and therefore happiness is death. Both premises are true and the conclusion appears to follow. Why? Likeness of the word 'end' is the reason for the appearance of a syllogism. Just as fool's gold resembles and has the appearance of real gold because of its shiny yellow color, so also an argument may assume the appearance of a rigorously concluding syllogism because the word 'end' is the same. Obviously, the conclusion is not true. Albert says, "However the *causa non existentiae* is the diversity of signification."[43] The "*causa non existentiae*" or the cause of the defect of the syllogism is that it has four terms because 'end' signifies both the purpose of life and the termination of its duration. In other words, the argument has no middle term because life's end does not signify the same thing in both premises, and hence the syllogism is defective.

[42] *[C]ausam apparentiae habet unitatem vocis* (Albertus Magnus I, 1890, tr. 2, c. 2, p. 542a).
[43] *Causam autem non existentiae habet diversitatem significatorum* (Albert Magnus I, 1890, tr. 2, c. 2, p. 542a).

These causes of the sophistical refutation are sufficient for the appearance of refutation insofar as the interlocutor lacks experience. "For inexperienced people perceive just as if they were looking from far away."[44] Just as those who are inexperienced with the subtle difference between genuine and counterfeit gold are fooled by their likeness, so also are those inexperienced with the subtle difference between the genuine and sophistical refutation fooled by their likeness. In some way, then, inexperience with and ignorance of genuine refutation are causes of the appearance of sophistical refutations (SE 168a17-169a20).

The Sophist's Purposes

Aristotle also unfolds the other causes of sophistical refutations. The agent cause of the sophistical refutation is the sophist. In harmony with Plato's *Sophist* (268c), Aristotle characterizes the sophist as a person for whom "seeming to be wise is more profitable than being [wise] and not seeming to be."[45] That is, for the sophist it is better to appear to be wise than to be wise. He uses the tool of *apparent* refutation for the sake of an *apparent* wisdom. Aristotle also characterizes the sophist by his more proximate end as a lover of victory (SE 165b13, 171b22-b34). This characterization places the sophist in stark contrast to the philosopher—the lover of wisdom. Philosophy differs from dialectic in the manner of its capacity, but it differs from sophistry in the kind of

[44] οἱ γὰρ ἄπειροι ὥσπερ ἂν ἀπέχοντες πόρρωθεν θεωροῦσιν (SE 164b26-27).
[45] μᾶλλον πρὸ ἔργου τὸ δοκεῖν εἶναι σοφοῖς ἢ τὸ εἶναι καὶ μὴ δοκεῖν (SE 165a19-21). Cf. also Dorion, 1995, pp. 52-53, 111-112, and 120-121.

life chosen (Meta 1004b16-25). It is not ability or even habit that principally distinguishes a philosopher from a sophist; it is their loves that divide them. For the sophist, winning is more important than the truth and therefore he chooses a life ordered to apparent wisdom. The philosopher would rather know the truth and appear ignorant and therefore chooses a life ordered to wisdom. A sophist chooses to place the good of appearing wise and the evil of appearing foolish over the good of truth and the fear of being mistaken.

In the practical order, the first principle is the ultimate end, and the means are determined insofar as the practical intellect can bring about that end. Thus, the various tools or methods of the sophist are the different ways (τρόποι) that he may bring about the appearance of his wisdom. Before Aristotle unfolds the different means of the sophist, he lays out the more proximate ends or aims of the sophist. There are five aims: to refute the interlocutor, to manifest that he has stated a falsehood, to lead him into a paradox, to get him to commit a solecism, and fifth to make him babble (SE 165b12-23). By overcoming his opponent in these five ways or the appearance of these, the sophist—the lover of victory—appears wise. They are his five forms of victory.

The sophist prefers the end of refutation above all (SE 165b19-20). Albert the Great points out that the sophist orders his actions principally to refutation because he thinks that this will bring him the most glory.[46] It is proper to the wise man to state the

[46] Cf. Albertus Magnus I, 1890, tr. 1, c. 5, p. 533b: *hoc enim maximam reputant gloriam*.

truth but also to expose error (SE 165a25-27). Exposing error, however, is more glorious insofar as it involves upheaval, which captures the attention of an audience. Moreover, since the principle of non-contradiction is the ultimate principle of reason, its violation is the ultimate defect of reason. Revealing this defect through refutation is "the greatest of all purifications" (*Sophist* 230d6-10). The interlocutor is shown to have violated the fundamental principle of the mind. There is nothing more humiliating or disastrous to the mind than for it to be led to contradict itself. The refuter above all appears to be the benefactor of those in error. Not only does the refuter seem to know but he also sets others aright. The sophist's chief aim is to refute because refuting brings about the greatest appearance of wisdom.

Aristotle's original definition of a sophistical refutation may then be revised to account for all of its various causes. A sophistical refutation is a speech that appears to be a refutation due to its likeness to a real refutation, but is not a refutation; it is sought as a means by the sophist to appear wise and deceives because of the interlocutor's inexperience in distinguishing the genuine from the apparent refutation.

What the Subject Matter is not.

The *Sophistical Refutations* is about the causes of error, but it does not treat the causes of error from every angle. The treatise treats of error insofar as it may be caused by deceptive argument. Pride, the passions, and human nature are causes of error. Thomas Aquinas, for instance, holds that "the root of mistakes is twofold, to wit, the

affection of pride and the defect of the understanding."[47] Further, Aristotle holds that the stirring of the passions leads men to error (Rhet 154b8-12). Moreover, Aristotle implies that the lowness of our nature is in some sense the cause of error.[48] While such causes are worthy of consideration, they are beyond the consideration of the treatise because they are not deceptions used in argument.

Further, since the sophist's primary tool is sophistical refutation, and refutation is a syllogism, the work does not deal with every kind of sophistical argument. Aristotle's treatise does not treat of an argument that appears to be an induction on account of some likeness, but that is not an induction as a result of some defect. Certainly, what Aristotle says in the *Sophistical Refutations* will lead one to suspect how he would account for this kind of fallacy and how one would untie such arguments, but they are never directly addressed. This subject matter, then, leaves out certain common "fallacies" such as the fallacy of the hasty generalization. The hasty generalization is a defective induction,[49] and as such, it is not discussed in this work.

Again, the treatise does not treat of arguments that are germane to a specific subject matter, but only concerns fallacies that one may use in any philosophical discipline. Although Aristotle claims that his list of sophistical refutations is complete,

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[47] *Radix autem erroris est duplex, scilicet superbiae affectus, et defectus intellectus* (Aquinas, 1953, VI, l.1, n. 238).
[48] Cf. DeAn 427b1-5. Cf. also Meta 1005b23-24 where Aristotle claims false imagination can cause one to verbally contradict first principles.
[49] Cf. Kreeft, 2008, p. 100.

the *Sophistical Refutations* does not treat every kind of sophistical refutation since some kinds of sophistical refutations are proper to a specific discipline. It is more efficient for a sophist to use tools that he can use in any discussion. On the one hand, the sophist cannot use the naturalistic fallacy—"the illicit inference from facts to norms"[50]—in mathematics or metaphysics. On the other hand, he can use the fallacy of equivocation in any discipline. It is because of the universal application of the fallacy of equivocation that it and similar fallacies are treated in the *Sophistical Refutations* while others are not.

Finally, today we use the English word fallacy to refer to the "*Ad*" arguments such as *ad baculum* or *ad hominem*. Such "arguments" would not fall under Aristotle's category of fallacy (παραλογισμός) because they are not apparent arguments at all.[51] They are available means of persuasion which do not primarily use λόγος but affect the πάθος or the judgement of ἔθος. Hamblin argues that Francis Bacon's four idols mark a shift in the western world of treating these "appeals to psychological factors" as fallacies.[52] Whatever the origin of calling such means of persuasion fallacies, it is clear that Aristotle does not consider these methods in the *Sophistical Refutations* because they do not appear to be refutations, syllogisms, or even arguments in the strict sense.[53]

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[50] Finnis, 1980, p. 33.
[51] Cf. Walton, 1992, p. 97: "Such arguments may help lead one to think a certain thing or think it with more conviction or intensity, but they do not do so through a form of apparent syllogism."
[52] Cf. Hamblin, 1970, pp. 144-148. Cf. also Evans, 1975, p. 44.
[53] To say one can learn nothing about this kind of persuasion from Aristotle is too strong. Aristotle certainly touches this form of persuasion in the *Rhetoric*. Cf. for instance, Rhet 1354a16-31; 1356b28-1357a7 1377b15-1378a31. Cf. also NE 1095a2-11.

Introduction II: Role of Sophistical Refutations in Aristotle's Organon

[T]his then is the first thing we should guard against, he [Socrates] said. We should not allow into our minds the conviction that argumentation (λόγοι) has nothing sound about it; much rather we should believe that it is we who are not yet sound and that we must take courage and be eager to attain soundness.
-Plato, Phaedo

II. I Socrates' Call for An Art of Arguments "τέκνη περὶ λόγος"

In Plato's dialogue the *Phaedo*, the character, Phaedo, recounts Socrates' final discussion with his friends in the hours leading up to his death. Socrates initially poses three arguments for the soul's immortality—arguments that are convincing to most members of the discussion. Simmias and Cebes, however, remain unconvinced. Seeing their reticence, Socrates invites them to engage publicly in the conversation, to which they respond with strong rebuttals. They reply that the soul may be nothing more than a kind of harmony or composition in the body or perhaps a hardy material substance that, like a cloak, may outlast many owners, but will eventually perish like all other bodies. These rebuttals darken the mood:

> When we heard what they [Simmias and Cebes] said we were all depressed, as we told each other afterward. We had been quite convinced by the previous argument [Socrates' argument], and they seemed to confuse us again, and to drive us to doubt not only what had already been said but also what was going to be said, lest we be worthless as critics or the subject itself [the fate of the soul] admitted of no certainty (*Phaedo* 88c, trans. Grube).

However convincing Socrates' original arguments had been to his interlocutors, those arguments were later subject to unforeseen objections that led Phaedo and his

companions not only to doubt their validity but even to question the validity of any argument whatsoever. Socrates' interlocutors not only begin to doubt Socrates' arguments; they begin to doubt argument itself.

Socrates responds to this skepticism with an exhortation to avoid the greatest of all suffering, that of becoming misologues—haters of argument:

> [W]e must not become misologues, as people become misanthropes. There is no greater evil one can suffer than to hate reasonable discourse. Misology and misanthropy arise in the same way. Misanthropy comes when a man without knowledge or skill (τέχνη) has placed great trust in someone and believes him to be altogether truthful (ἀληθῆ), sound (ὑγιῆ) and trustworthy (πιστὸν); then, a short time afterwards he finds him to be wicked and unreliable, and then this happens in another case; when one has frequently had that experience, especially with those whom one believed to be one's closest friends, then, in the end, after many blows, one comes to hate all men and to believe that no one is sound in any way at all. … This is a shameful state of affairs. … and obviously due to an attempt to have human relations without any skill in human affairs (*Phaedo* 89d-e, trans. Grube).[54]

Socrates likens misology to misanthropy. One is hatred of other men, and the other is hatred of arguments. Just as misanthropy arises from trusting people that one should not trust, so too does misology stem from placing confidence in arguments that one should not trust. Certain arguments may seem (δοκεῖν) to be true at one time and at another time seem false. This inconsistency leads some men to spend their time hating

[54] It is important to note that Grube translates τέχνη as skill. I translate the same Greek word as art when it is used in the *Sophistical Refutations* and St. Thomas Aquinas translates τέχνη as *ars* which I also translate as art.

all argument, shifting the blame away from their own want of skill onto the arguments (*Phaedo* 90c8-d7).

Socrates concludes that if one is fooled by an argument, the proper response is not to hate argument or to think that no argument can be true, sound, and trustworthy, but to recognize that we are not yet sound ourselves. Socrates claims that the cause of misanthropy is "an attempt to have human relations without any skill in human affairs." Likewise, the cause of misology is an attempt to engage in argument without skill or art by which one may categorize sound arguments as sound arguments and bad arguments as bad arguments. To avoid mistaking one kind of argument for another requires studying what distinguishes different kinds of arguments, which includes studying how different arguments are made. In short, avoiding misology requires an art of arguments.

II.II What is an Art (τέχνη) of Arguments?

Aristotle's Meaning of Art

Whether or not Socrates' call for an art of arguments was the direct cause of Aristotle's composition of the *Organon*, Plato's overall emphasis on dialectic clearly influenced the method and doctrine of Aristotle's logical works.[55] Aristotle understood dialectic and

[55] The relationship of Aristotle's and Plato's conception of dialectic is a weighty subject. It will not be treated here. For lengthy discussions on the relationship see Evans, 1975, pp. 7-52 and Dorion, 2011, pp. 563-582.

sophistic as arts of arguments,[56] and so to understand Aristotle's conception of the art of sophistic, let us first turn to Aristotle's notion of art itself.

To begin, let us consider art's purpose. It is proper to man to direct his acts through reason and not only through instinct (Meta 980b28). Actions resulting from instinct are more determined than those resulting from reason. While a spider always builds the same sort of web and in the same way, a carpenter can build a house in many different styles and in many different ways.[57] Human action is vastly indeterminate, and as a result, it is not always directed towards a good. Man requires reason, therefore, to help determine his acts in an orderly and efficient manner towards his ends.

Utilizing his reason, man may determine his reason according to habit (ἕξις). A habit, which Aristotle places in the genus of quality (Cat 8b27), is a firm disposition by which a person is disposed in a good or bad condition.[58] Habit is distinguished from the stricter sense of disposition insofar as habits are more stable and longer lasting than dispositions (Cat 8b28-9a4).[59] Aristotle offers scientific knowledge and moral virtue as examples of habits to manifest that they cannot be lost without great upheaval. In

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[56] Cf., for example, SE 165a32-39.

[57] Thomas Aquinas uses this and other similar examples to explain what Aristotle sees as the difference between art and instinct in his commentary on Aristotle's *Physics*. Cf. Blackwell, 1995, I, l. 13, n. 259, p. 130.

[58] Meta 1022b11. Cf. also NE 1104b19. Cf. also, for example, the two τρόποι of habit, in the beginning of PA 639a 2-3.

[59] But a habit can also be called a disposition in the broad sense for by a habit we are disposed in some way. Thus, the word disposition could be used in general for this species or genus of quality and then be kept for the disposition in particular that is easily movable while the other species, adding something noteworthy (stability and long lastingness), gets the new name of habit. Cf. Cat 9a12-14.

contrast, health and sickness are dispositions because they come and go. Habit then is some sort of firm disposition in a person towards a determined end.

When a habit determines human action to its proper end, it is a good habit or virtue. Aristotle lists art as one of the five virtues of thought (τῆς διανοίας, NE 1138b35-a2, 1139b16–17). All virtue "causes that of which it is a virtue to be in a good state (ἕξις), and to perform its characteristic activity (ἔργον) well" (NE 1106a15– 19; cf. also, Top 131b1– 4). Every virtue is a "good state" or habit (ἕξις) and directs human powers to perform their proper acts well. For Aristotle, then, art is a virtue of thought that orders human action toward the art's particular end.[60]

Next, let us investigate what makes art a "virtue of thought." Aristotle's examples of habits in the *Categories* match the two kinds of virtues in the *Ethics*: character virtue and virtue of thought (NE 1103a10). While virtues of character are acquired by repeatedly doing the same kind of action (ἔθος), virtues of thought owe their "origin and development mainly to teaching, for which reason its attainment requires experience and time" (NE 1103a14-16, trans. Crisp). Aristotle claims that arts are acquired by learning rather than practice (Meta 1047b34). Clearly, what is acquired by learning instead of repeated action must be some sort of knowledge. Hence, art is a virtue of thought by being a kind of habit or fixed disposition of knowing.

[60] Aristotle considers all arts as aimed at some good. Cf. NE 1094a1.

More specifically, art is a habit of knowing how to *make* something. In contrast, the virtue of scientific knowledge (ἐπιστήμη), which is also a habit of knowing, does not directly teach one to make anything. Aristotle claims that "all arts and productive sciences are abilities. For they are principles of change in some other thing inasmuch as it is other."[61] Art is distinguished from the speculative virtues of thought insofar as it is practical and distinguished from prudence insofar as it is ordered to the production of some product. Hence, Aristotle says,

> Every art is about coming into being, and employing an art means to consider how contingent things whose principle is in the one making but not in the thing made may come to be.[62]

If it is to be art, there must be something made. Making is an action that passes into something else as building or cutting pass into something other, but doing an action may also abide in the agent as dancing or running do not pass into another.[63] Making is ordered to the production of something other than the action itself. Art perfects reason's direction of activities which pass into exterior matter. Prudence perfects reason's direction of activities which remain in the agent. In a word, art is a habitual

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[61] πᾶσαι αἱ τέχναι καὶ αἱ ποιητικαὶ ἐπιστῆμαι δυνάμεις εἰσίν: ἀρχαὶ γὰρ μεταβλητικαί εἰσιν ἐν ἄλλῳ ἢ ᾗ ἄλλο (Meta, 1046b2-3). Cf. also NE, 1098b33 where Aristotle opposes ἕξις to its actuality.

[62] ἔστι δὲ τέχνη πᾶσα περὶ γένεσιν καὶ τὸ τεχνάζειν καὶ θεωρεῖν ὅπως ἂν γένηταί τι τῶν ἐνδεχομένων καὶ εἶναι καὶ μὴ εἶναι, καὶ ὧν ἡ ἀρχὴ ἐν τῷ ποιοῦντι ἀλλὰ μὴ ἐν τῷ ποιουμένῳ (NE 1140a10-14).

[63] Cf. *Summa Theologiae*, Ia IIae, q. 57, a. 4.

knowledge of how to produce something "other" well, or as Aristotle puts it, art is "a productive habit (ἕξις) in cooperation with true reason."[64]

It should also be clear at this point that insofar as Aristotle considers art (τέχνη) a habitual knowledge, it is more specific than our normal English meaning of the word. We might speak of "arts" as acquired by training as well as by learning—even as primarily acquired by training. It is hard to see how "art" could be considered a habitual knowledge that is acquired primarily by teaching. For Aristotle, however, what is acquired by training is called experience (ἐμπειρία). Aristotle contrasts art with experience in the first chapter of his *Metaphysics*. Art comes about through experience (διὰ τῆς ἐμπειρίας, Meta 191a3). Aristotle claims "art comes to be whenever one universal supposition concerning similar things comes about from many intelligible objects of experience."[65] It is a matter of experience to know that when Callias was sick this treatment helped him, but it is matter of art to know that anyone of a certain sort can be helped by this sort of treatment (Meta 981a7-12). No art as such considers the individual as such, although art's use does (Rhet 1356b30-36). Aristotle's art is exclusively a habitual knowledge.[66] This is why C.D.C. Reeve translates τέχνη as "craft

[64] ἕξις μετὰ λόγου ἀληθοῦς ποιητική (NE 1140a10).
[65] γίγνεται δὲ τέχνη ὅταν ἐκ πολλῶν τῆς ἐμπειρίας ἐννοημάτων μία καθόλου γένηται περὶ τῶν ὁμοίων ὑπόληψις (Meta 981a5-7).
[66] Although using art in this way may seem counter-intuitive, this interpretation of Aristotle's art is fairly standard. Joe Sach's describes Aristotle's art as the "know-how that permits any kind of skilled making." Cf. Sachs, 1999, p. 243. Apostle states, "This [art] is *knowledge* and skill of how to produce something." The emphasis is Apostle's. Cf. Apostle, 1976, p. 451.

knowledge" rather than the more traditional renderings of art or craft.[67] It should be clear then that Aristotle uses the word art (τέχνη) as a habit of the mind and not as acquired primarily by training.

It is worth noting that that a man could not be a good carpenter without experience in carpentry. Aristotle is simply saying that the art (τέχνη) is not the experience. As Aristotle says, "knowledge and comprehension belong to art rather than to experience" (Meta 981a24-25). In fact, Aristotle claims a man with experience is often more successful in producing his product than a man with an account (λὸγος) but without experience (Meta 981a12-15). Possessing the art of carpentry is not sufficient to make good desks and tables in every instance; experience is also necessary. For experience is knowledge of the particular while art is knowledge of the universal. A carpenter does not build a universal desk but this or that desk (Meta 981a15-23). Certainly, experience in woodworking is necessary for a person to be a good carpenter.

Although the man of experience may bring about a product more efficiently than an artist, the artist is wiser than the man of experience. For the artist knows both what the product is and *why* such and such actions will bring about the product because he knows the cause (Meta 981a24-28). The man of experience may know that this action will bring about this product but he does not know why. For this reason, the more architectonic artist is wiser than the handicraftsman—not because he is more practically

[67] Cf. for instance, Reeve, 2016, 980b26ff, p. 2.

efficient but because he has a more complete account and knows more than merely the proximate causes (Meta 981a29-981b9).

An Art of Arguments

Accordingly, the art of arguments, commonly called logic, is a habitual knowledge ordered chiefly to the production of arguments.[68] The mind is properly able to know and direct its own acts, and thus it is able to dispose itself to make things well. The mind is ordered by nature to the truth (Meta 980a20). The mind comes to know what it does not know, at least in part, through arguments,[69] and therefore it follows that the mind comes to its good through the production of arguments. Consequently, logic is chiefly an art of knowing how to make arguments.

Arguments are artifacts in an extended sense. They exist in the mind. Surely, they are not "other" in the usual sense, but they must be "other" in some way. We speak of "making" arguments and nothing can make itself. There is some distinction between the maker and the made even if the product exists in the maker. It is the fruit of his labor. Aristotle, for example, is willing to call health the product of the art of

[68] The art of logic also considers how other second intentions such as definitions or endoxical statements might be made. Chiefly, however, logic is ordered to the production of arguments since argument is the mind's primary means of coming to know what it does not know. Even knowledge of how to make definitions and endixical statements can in some way be seen as ordered to the production of arguments. One reason why the mind should know how to make definitions is because a definition is often the middle term in demonstration. We shall see below that endoxical statements are the premises of dialectical arguments.

[69] It is clear that Aristotle holds that one comes to know through arguments by his inductive manner of showing that all learning comes from preexistent knowledge. Cf. APo 71a1-11.

medicine (Meta 1032b1-14). Still, the doctor is not limited to bringing about health in others, but he can also bring about health in himself (Phys 192b25). In the same way, a logician makes arguments that exist in his and other minds, and nevertheless they are in some sense distinct from the logician.

II.III A Neat Division of Arguments

Where does the *Sophistical Refutations* fit into this art of argument? Socrates divides men into three classes: those who are always truthful (ἀληθῆ), sound (ὑγιῆ), and trustworthy (πιστὸν), those who never are, and those who are in between the other two kinds (*Phaedo* 89e-90b). By this division, Socrates' analogy of misology to misanthropy anticipates Thomas Aquinas' threefold division of the kinds of argument in his prooemium to the *Posterior Analytics*. Thomas, taking for his criterion the different degrees of certainty demanded by the conclusions of the arguments, divides the logic of reasoning into three parts.[70] The first part is the study of syllogisms one can trust completely, namely demonstrations, which he says is the subject of Aristotle's *Analytics*; second, the study of arguments one can trust up to a point, and this in different degrees, which he claims is the subject of Aristotle's *Topics*, *Rhetoric*, and *Poetics*; and third, the

[70] Cf. Berquist, 2007, pp. 2-3. It should be noted that Aquinas' division of the logic of reasoning here is a division of only a part of logic. For logic is divided according to the three acts of the mind: comprehending the simple, composing and dividing, and reasoning. The first two acts of the mind are distinguished by Aristotle in Book 3 of the *De Anima*. Cf. DeAn 430a26-27. According to Aquinas, The *Categories* are part of the logic of the first act of the mind. *On Interpretation* is ordered to the second act of the mind. The logic of the third act of the mind is divided as given above.

study of arguments one cannot trust at all, which he claims is the subject of the *Sophistical Refutations*.[71]

In the eyes of Aquinas, the *Sophistical Refutations* treats arguments that are completely untrustworthy as a part of Aristotle's larger body of work that treats arguments generally. The sham syllogism does not compel assent from the mind, the dialectical syllogism compels probable assent from the mind, and the demonstration compels complete assent from the mind. Thus, according to Aquinas, Aristotle's logic is the answer to Socrates' desire for an art by which one will become strong in arguments. Since the cause of misology is ultimately mistaking one type of argument for another, a person avoids misology through learning the characteristics of the three types of arguments. Aristotle's *Organon* is ordered—among other things—to determining the characteristics of the various types of arguments and thereby to helping students avoid mistaking one for the other and becoming misologues. The *Sophistical Refutations* treats arguments that cannot be trusted at all.

[71] Socrates explicitly denies that there are three types of argument that correspond to the three types of men. In fact, it is as if he brings up the three types of men in order to deny this. Cf. Nieto, 2002, p. 7. I suspect that Socrates' denial—as is his way—is ironic and he in fact does think that there are these three types of arguments that correspond to the three types of men to whom he alludes.

II.IV Aristotle's Division of Syllogisms

At the beginning of the *Topics*, Aristotle divides syllogism—a form of argument—into *four* kinds: two of which are genuine and two of which are deceptive. The basis for this division is the quality of premises:

> It is demonstration if the syllogism is from true and primary [premises], or if [the syllogism] takes as a principle of knowledge [premises] which are derived from first and true [premises]. A dialectical syllogism is one which syllogizes from endoxes (plausible opinions).[72]… The contentious syllogism is the one from apparent but not real endoxes or the apparent [syllogism] from endoxes or from apparent endoxes. … Moreover, besides all the syllogisms mentioned, there are fallacies which arise from things proper to some science.[73]

There are two genuine forms of syllogism: the demonstrative and the dialectical, and there are two counterfeit forms of syllogism: the contentious—that is, the sophistical[74]—

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[72] ἔνδοξον which I transliterate as endox (or endoxes in the plural) has the etymology of "in opinion." As defined by Aristotle it is opinion that is held in some general way; the opinion is "in" at the moment. I choose this translation in imitation of Yvan Pelletier who prefers endox to the normal translation of probable opinion. "For ἔνδοξον, I dislike the standard translation: probable, which doesn't target the dialectical matter from the same point of view as Aristotle. Instead of the suggested workaround paraphrases (received idea, current opinion), I prefer 'the neologism endoxical' attempted by Brunschwig (xxxv, note 1) and "built on the pattern of its exact antonym, paradoxical.' I'll even say endox, when I'll need to consider dialectic's discrete matter; the endox is related to endoxical, as paradox to paradoxical." Cf. Pelletier, 2014, p. 3. The reference Pelletier makes is to Brunschwig, 1967.

[73] ἀπόδειξις μὲν οὖν ἐστιν, ὅταν ἐξ ἀληθῶν καὶ πρώτων ὁ συλλογισμὸς ᾖ, ἢ ἐκ τοιούτων ἃ διά τινων πρώτων καὶ ἀληθῶν τῆς περὶ αὐτὰ γνώσεως τὴν ἀρχὴν εἴληφεν, διαλεκτικὸς δὲ συλλογισμὸς ὁ ἐξ ἐνδόξων συλλογιζόμενος. ... ἐριστικὸς δ' ἐστὶ συλλογισμὸς ὁ ἐκ φαινομένων ἐνδόξων μὴ ὄντων δέ, καὶ ὁ ἐξ ἐνδόξων ἢ φαινομένων ἐνδόξων φαινόμενος· ... Ἔτι δὲ παρὰ τοὺς εἰρημένους ἅπαντας συλλογισμοὺς οἱ ἐκ τῶν περί τινας ἐπιστήμας οἰκείων γινόμενοι παραλογισμοί (Top 100a27-101a7).

[74] Aristotle holds that the sophistical syllogism is the contentious syllogism used for a different purpose. They are in fact both apparent syllogisms. The apparent syllogism is sophistical insofar as it is used for the appearance of wisdom, but it is contentious insofar as it is used for the love of victory itself. "[T]hose so disposed for the sake of victory itself are held to be contentious men and lovers of strife, but those so disposed for the sake of a reputation for the purpose of moneymaking are held to be sophistical" (SE 171b25-30).

and the fallacy proper to particular sciences.[75] The demonstration is from true and primary premises, that is, premises, "which have conviction not through other things but through themselves." The dialectical syllogism is from endoxes. Aristotle defines endoxes as "premises which seem so to all or to most or to the wise, and to all the latter or most or to the most knowing and well-reputed (ἐνδόξοις, Top 100b21-24)."[76] The sophistical syllogism is the corruption of the dialectical insofar as it syllogizes from what is not but appears to be an endox or appears to syllogize from endox. Finally, the fallacy proper to particular sciences—the false-diagrammatic—is the corruption of the demonstration insofar as it syllogizes from what seems, but is not, a first principle of demonstration.[77]

The sophistical refutation is not the only kind of counterfeit argument, nor is it even the only kind of counterfeit syllogism. For this reason, the treatise should not be considered Aristotle's *complete* account of untrustworthy arguments. Thomas Aquinas, therefore, is not being entirely precise when he identifies the *Sophistical Refutations* as that the part of the *Organon* that deals with arguments that one cannot trust at all.[78]

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[75] Euclid's *Pseudria* was a compilation of such arguments in geometry. Cf. Heath, 1956, vol. I, p. 7.
[76] The notion of the endox will be examined more fully below.
[77] For a more thorough discussion of this form of fallacy see Chapter 11 and commentary.
[78] Thomas Aquinas knowingly overgeneralizes the subject matter of the *Sophistical Refutations* as is evident from his comments on the paralogisms that proceed from principles proper to a discipline. Cf. Berquist, 2007, p. 122-123.

According to Aristotle, the treatise deals specifically with the kind of syllogism that is the corruption of the dialectical syllogism.[79]

II.V The Sophistical Art as Part of the Dialectical Art

This connection between the sophistical syllogism and the dialectical syllogism highlights the place of sophistic in the general art of logic. The *Sophistical Refutations* has been called an appendix to Aristotle's work the *Topics*,[80] as Edward Poste and E. S. Forster claim that Aristotle twice refers to the *Sophistical Refutations* as the *Topics*.[81] Whether or not Forster and Poste are correct in judging the references as referring to material in the *Sophistical Refutations* and in judging the references as authentic to Aristotle, it is clear that Aristotle intended both the *Sophistical Refutations* and *Topics* to treat parts of the same discipline. For one thing, the conclusion to the *Sophistical Refutations* serves additionally as a conclusion to Aristotle's treatment of the art of dialectic in its entirety (SE 183a36-184b). Further, the *Topics* and the S*ophistical Refutations* assume the same context of a particular form of dialectical disputation. More significantly, Aristotle claims that the sophistical art is part of the dialectical art: "Accordingly, these are the ways of sophistical refutations. It is easy to see that it is the

[79] Aristotle treats of fallacies that use false premises particular to a specific discipline in his *Posterior Analytics*, 79b23-81b9.
[80] Cf. Forster, 1955, p. 2.
[81] Cf. APr 65b16, and DeIn 25b26. The passage from APr does, in my opinion, refer to discussions in the *Sophistical Refutations*: SE 167b21ff. The passage from the DeIn could refer to the SE 167b38ff. Cooke, however, thinks the passage from the DeIn refers to Topics 160a18ff. Cf. Cooke, p. 150.

dialectician's [task] to consider about them and to be able to make them."[82] Just as there is not one science of medicine that considers health and another that considers sickness, so too there is not one art that considers dialectical refutations and another that considers sophistical refutations (Rhet 1355b13-20).

Aristotle considers the sophist as a corrupt or counterfeit dialectician. On the one hand, one might aptly rename the *Topics* true refutations to parallel the name of the *Sophistical Refutations*. On the other hand, one might aptly rename the *Sophistical Refutations* sophistical topics to match the title of the *Topics*. Knowledge of an opposite sheds light on its opposite, or to put it as Aristotle would, "knowledge of contraries is the same."[83] And so, to understand fully the place and nature of the *Sophistical Refutations* in Aristotle's *Organon*, let us consider the place and nature of dialectic. This consideration will further allow us to understand the other name given to sophistical refutations: τόποι.

II.VI What is Aristotelian Dialectic?

Dialectic as an Art and Ability

The human mind naturally endeavors to give reasons for the things man does and believes. Even so, sometimes one reasons better, sometimes worse—either at random or through habit. This natural comparison of arguments as being more or less reasonable

[82] Τρόποι μὲν οὖν εἰσιν οὗτοι τῶν σοφιστικῶν ἐλέγχων. ὅτι δ' ἐστὶ τοῦ διαλεκτικοῦ τὸ θεωρῆσαι περὶ τούτων καὶ δύνασθαι ταῦτα ποιεῖν, οὐ χαλεπὸν ἰδεῖν (SE 172b5-7).
[83] Cf. for instance, SE 174b37-38 or Top 104a15-17.

or persuasive is a universal experience. It results from intuiting the standards of reasoning that serve as the foundation for distinguishing better reasoning from worse. The knowledge of this standard belongs to the art of logic generally and to dialectic in a more limited sense. In the following text, Aristotle characterizes rhetoric and dialectic in this way:

> Rhetoric is counterpart to dialectic; for both concern such things that are in a way within the common ken of all men and belong to no determinate science. Hence all men in a way participate in both; for, to some extent, all men attempt to criticize or uphold an account, to defend themselves or to accuse. Now, ordinary people do this either at random or with a familiarity arising from habit. Both ways being possible, clearly the subject can be handled *methodically* because it is possible to inquire the *reason why* some people succeed through practice but others automatically; and everyone will at once agree that this sort of undertaking is the characteristic activity of *art*.[84]

Clearly, what is said here applies to both rhetoric and dialectic. As a branch of logic, dialectic is ordered in some way to knowledge of the standards of reasoning. All men have a natural ability to argue and give grounds for the things that they believe. All men interrogate and refute. Yet, it is possible to understand the "reason why" some are more successful than others, and with this understanding to develop a method of making arguments, and by such knowledge reason "artfully" (SE 172a29-37).

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[84] Ἡ ῥητορική ἐστιν ἀντίστροφος τῇ διαλεκτικῇ· ἀμφότεραι γὰρ περὶ τοιούτων τινῶν εἰσιν ἃ κοινὰ τρόπον τινὰ ἁπάντων ἐστὶ γνωρίζειν καὶ οὐδεμιᾶς ἐπιστήμης ἀφωρισμένης· διὸ καὶ πάντες τρόπον τινὰ μετέχουσιν ἀμφοῖν· πάντες γὰρ μέχρι τινὸς καὶ ἐξετάζειν καὶ ὑπέχειν λόγον καὶ ἀπολογεῖσθαι καὶ κατηγορεῖν ἐγχειροῦσιν. τῶν μὲν οὖν πολλῶν οἱ μὲν εἰκῇ ταῦτα δρῶσιν, οἱ δὲ διὰ συνήθειαν ἀπὸ ἕξεως· ἐπεὶ δ' ἀμφοτέρως ἐνδέχεται, δῆλον ὅτι εἴη ἂν αὐτὰ καὶ ὁδῷ ποιεῖν· δι' ὃ γὰρ ἐπιτυγχάνουσιν οἵ τε διὰ συνήθειαν καὶ οἱ ἀπὸ τοῦ αὐτομάτου τὴν αἰτίαν θεωρεῖν ἐνδέχεται, τὸ δὲ τοιοῦτον ἤδη πάντες ἂν ὁμολογήσαιεν τέχνης ἔργον εἶναι (Rhet 1354a1-12). Emphasis my own.

Dialectic is not only a reasoned understanding of how to make refutations; it is also an ability (δύναμις) to find the premises that one's interlocuter will accept, and an ability to uphold one's own position. Dialectical art is a teachable ability to reason correctly and methodically. Aristotle begins the *Topics* by delineating the two chief abilities contained in the dialectical method:

> The purpose of the treatise is to find a method from which we will be able (δυνησόμεθα) to syllogize about every proposed problem from endoxes, and, [from which], we ourselves will say nothing contrary when maintaining an argument.[85]

The *Topics* and the *Sophistical Refutations* are practical treatises.[86] The intention of the *Topics* is to describe systematically a method by which the dialectician has two abilities: to refute and to avoid being refuted. These two abilities mirror the above described goals of the questioner and the answerer in the dialectical disputation. The questioner attacks the answerer by using the answerer's opinion in an effort to lead him into affirming something inconsistent. For this reason Aristotle defines dialectic as syllogizing from endoxes even to contradictory conclusions (SE 165b5).[87] Syllogizing to contradiction is the mark of refutation. The dialectician can syllogize from endoxes on

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[85] Ἡ μὲν πρόθεσις τῆς πραγματείας μέθοδον εὑρεῖν ἀφ' ἧς δυνησόμεθα συλλογίζεσθαι περὶ παντὸς τοῦ προτεθέντος προβλήματος ἐξ ἐνδόξων, καὶ αὐτοὶ λόγον ὑπέχοντες μηθὲν ἐροῦμεν ὑπεναντίον (Top 100a18-21).

[86] Cf. Smith, 1997, xxii.

[87] The dialectician's ability to reason to contradictory positions is exemplified in Plato's *Meno* where Socrates argues both that virtue can be taught because—he argues—virtue is knowledge and knowledge can be taught and later he argues that virtue cannot be taught because then there would be teachers and students of virtue but there are none. Cf. Meno 86e-96c.

any topic to the refutation of any given opponent and can avoid saying anything inconsistent himself. Dialectic is first and foremost an ability of overcoming adversaries through refutation and an ability of avoiding such a defeat.

Aristotle claims that one has the method of dialectic perfectly when one is able to do what one chooses given the available means, just as it is in medicine, rhetoric, and other abilities. The rhetorician does not persuade by every tool that is available but he is aware of all of the possible tools that can bring about persuasion and chooses those that are most expedient. A person is a dialectician when he has the habitual knowledge of how to refute his opponent and avoid his own refutation using the most expedient means available and overlooking none (Top 101b5-11).

Accordingly, the *Topics*' purpose stands in sharp contrast to Aristotle's *Analytics*.[88] Demonstration is not directly ordered to an adversary's refutation but to scientific knowledge (ἐπιστήμη). Aristotle defines demonstration by its end; a demonstration is a syllogism that makes one know scientifically.[89] To know scientifically is to "know the cause and that it is the cause and that it cannot be otherwise."[90] Demonstration gives its possessor a stable knowledge of the truth—the

[88] At the beginning of the *Prior Analytics*, Aristotle says that the subject of analytics is demonstration and that the inquiry is demonstrative science. Cf. APr 24a10-12. I consider the *Prior Analytics* and *Posterior Analytics* to be really one work with a sharp break. The texts as they have been handed down to us refer to the Analytics as if it is one work. Cf. DeIn 19b31, Top 162a11, SE 165b9, Meta 1037, and NE 1139b27-32.
[89] Cf. APo 71b17-18. Cf. also Bryne (1997), p. xiii and pp. 9-10.
[90] γινώσκειν δι' ἣν τὸ πρᾶγμά ἐστιν, ὅτι ἐκείνου αἰτία ἐστί, καὶ μὴ ἐνδέχεσθαι τοῦτ' ἄλλως ἔχειν (APo 71b11-12).

conclusion "cannot be otherwise." In this way, scientific knowledge is like moral virtue. If one has habitual knowledge of a demonstration, he will never think that the contradiction is true and therefore will never be wrong about a subject but always right, just as a man with moral virtue will always do the right thing given the circumstances.

The art of dialectic will not make a person always right and never wrong concerning a certain subject. Nevertheless, it is an acquired ability that leads to the discovery of error, and as such, it is indirectly ordered to arriving at the truth. Socrates could confess his ignorance because he did not possess the habit of demonstration, and yet still manifests the ignorance of his many interlocutors because he possessed the art of dialectic (SE 183b5-10). By refuting the answerer, the questioner reveals that the answerer's opinions are in disharmony with one another. In truth, all things harmonize (NE 1098b9-11). Interlocutors, therefore, learn that particular sets of opinions cannot go together and thus refutation helps to reveal error.

The Premises of Dialectical Syllogisms

As we have seen, Aristotle not only distinguishes dialectic from demonstration by its purpose, but also by its premises. Dialectic does not require premises that are true or primary because it is not principally ordered to the truth, but rather to refutation; it only requires premises that are acceptable to the interlocutor, which, Aristotle tells us, are endoxes. He describes these endoxes more fully in chapter ten of the first book of his *Topics*.

> The dialectical proposition is an answer in accord with the expectation (ἔνδοξος) of all or most or the wise, and of all the latter or most or of the most knowing, and which is not a paradox; For someone would hold the expectation of the wise, if it is not contrary to the expectations of the many. The dialectical propositions are also things similar to endoxes, and also they are propositions made according to contradiction of things contrary to endoxes, and they are the many opinions (δόξαι) of the artists that have been discovered.[91]

The base of the Greek word ἔνδοξος is δόξα which is derived from δοκεῖν meaning expect. Laurence Godin-Tremblay points out that Homer uses ἀπὸ δόξης to signify what surprises or hinders expectation.[92] The word δοκεῖν itself derives from δέχεσθαι, which refers to the act of receiving or admitting. An endox is what most men, or what most men in certain classes, expect or admit. It is opposed here to paradox. Consequently, the dialectician reasons from endoxes because he needs premises that his interlocutor will accept. To progress efficiently towards refutation, he must know the kinds of premises his opponent will accept in advance. The dialectician will reason from endoxes because his interlocutor will mostly admit premises from this class of opinions. The endoxes that a dialectician actually employs in the course of a debate depend on who the interlocutor is and the position he takes on the established problem.

Furthermore, one may consider the endox from another direction. Since no one can always proceed from principles that are true, primary, more known, and causes of

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[91] ἔστι δὲ πρότασις διαλεκτικὴ ἐρώτησις ἔνδοξος ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς, καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις, μὴ παράδοξος· θείη γὰρ ἄν τις τὸ δοκοῦν τοῖς σοφοῖς, ἐὰν μὴ ἐναντίον ταῖς τῶν πολλῶν δόξαις ᾖ. εἰσὶ δὲ προτάσεις διαλεκτικαὶ καὶ τὰ τοῖς ἐνδόξοις ὅμοια, καὶ τἀναντία τοῖς δοκοῦσιν ἐνδόξοις εἶναι, κατ' ἀντίφασιν προτεινόμενα, καὶ ὅσαι δόξαι κατὰ τέχνας εἰσὶ τὰς εὑρημένας (Top 104a8-15).

[92] Cf. Godin-Tremblay, 2014, p. 108. Cf. also LS entry for δόξα and *Iliad*, c. 10, l. 324; *Odyssey*, c. 11, l. 344.

the conclusion (APo 71b19-22), men often syllogize from principles that lack this perfection. If someone does not know the true and primary principles, "the spontaneous reaction of reason is to trust its own nature, made to know truth, and adapted to this knowledge."[93] Hence, given reason's natural tendency toward the truth,[94] it will admit premises and principles which it expects, while not having complete justification of their truth. These "probable" principles are the endoxes.[95] As Yvan Pelletier puts it, "The endox is the idea that is admitted spontaneously, and therefore always or nearly always; although without perfect evidence."[96]

While true and primary principles cannot be otherwise, reason fears the contradiction of an endox. On the one hand, when one syllogizes from true and first principles, he syllogizes from: a) what is believed not on the strength of anything else but on itself, b) and what does not need a reason why for justification. Whatever is known in this way is known through itself (καθ' αὑτό). On the other hand, when one syllogizes from endoxes a) one can ask why about them, b) and they do not command assent in themselves; they can be doubted but they are accepted for the time being while one lacks the explicit and distinct knowledge of first principles.

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[93] Cf. Pelletier, 2014, p. 4.
[94] "Men are fairly well endowed by nature for truth and they attain truth most often" (Rhet 1355a15-16, trans. Pelletier). Cf. also Rhet 1355a21-22; 1355a35- 38 and Meta 993a30-993b19
[95] Thomas Aquinas, for instance, calls the endoxes probable (*probabile*) propositions in his Proemium to the *Posterior Analytics*. Cf. Berquist, 2007, p. 2.
[96] Pelletier, 2014, p. 4.

A demonstration's premises are limited to one side of a contradiction, but the premises of dialectic are not because the dialectician reasons from the answers of his opponent.

> A demonstrative premise is different from the dialectical [premise] because a demonstrative [premise] takes one part of a contradiction (for a demonstrator does not inquire but assumes), while the dialectical [premise] is [an answer to] an inquiry about a contradiction.[97]

Only one side of a contradiction can be true, and therefore the demonstrator is bound to this side of the contradiction on account of demonstration's direct order to truth. A demonstrator does not inquire of his pupil which side of the contradiction is true but assumes the true side of the contradiction. A dialectician takes either side of the contradiction "indifferently" (APo 72a9) because his premises need not be true nor even his opinion; all that is required for refutation is that the answerer accept the premises. Thus the dialectician inquires of his answerer which side of the contradiction the answerer will accept and uses whichever answer as a premise.

As a result of this free nature of dialectic, it is possible for the dialectician to refute truth. The answerer may take a true position regarding the established problem, and then the questioner may draw out a false opinion from his opponent, from which the questioner syllogizes to the contradiction of the true position. Although the

[97] διαφέρει δὲ ἡ ἀποδεικτικὴ πρότασις τῆς διαλεκτικῆς, ὅτι ἡ μὲν ἀποδεικτικὴ λῆψις θατέρου μορίου τῆς ἀντιφάσεώς ἐστιν (οὐ γὰρ ἐρωτᾷ ἀλλὰ λαμβάνει ὁ ἀποδεικνύων), ἡ δὲ διαλεκτικὴ ἐρώτησις ἀντιφάσεώς ἐστιν (APr 24a22-25).

premises are actually accepted and the reasoning is real reasoning, dialectic can arrive at a false or a true conclusion. It can use true or false premises. Here we see why the refutation of error is not one of the purposes Aristotle gives for the *Topics*. The dialectician refutes true and false opinions. In short, truth does not bind dialectical reasoning.

Universality of Dialectic

What dialectic loses in its ability to give certainty, it gains in its ability to be applied to any subject matter. Aristotle claims that "dialecticians dispute about all things" (Meta, 1004b19-20).[98] Dialectic is completely universal insofar as its method can be used to reason about any problem. When one has a demonstration of something, it is always within and restricted to a given subject. The demonstrator "cannot demonstrate while changing genera, for instance, a geometric [truth] in arithmetic."[99] A geometrician has the habit of geometrical demonstration, but his habit does not apply outside the science of geometry. Demonstration has a circumscribed subject because it uses premises that are proper to the subject matter.[100] In contrast, one who has the dialectical ability has a method applicable to any problem in any subject matter.

[98] It is on account of this quality that Aristotle draws a likeness between the dialectician and the first philosopher. It is the office of the dialectician to syllogize about all things but the subject matter of first philosophy is common to all things. Cf. Meta 1004a34-b27.

[99] οὐκ ἄρα ἔστιν ἐξ ἄλλου γένους μεταβάντα δεῖξαι, οἷον τὸ γεωμετρικὸν ἀριθμητικῇ (APo 75a38-39).

[100] For Aristotle's complete discussion of the limited nature of demonstration, cf. APo 75a38-78a21.

II.VII The Sophist and the Dialectician.

The previous discussion of dialectic may appear to be outside the scope of an introduction to a work on fallacies. Yet, as was noted earlier, Aristotle does not consider the dialectician to be distinct from the sophist in ability, but rather in purpose (Rhet 1355b20). They are two parts of the same art. The sophistic art is the dialectical art without regard for fair play. The sophist is good at being bad. He will, therefore, use tools towards apparent refutation that a dialectician would not use because a dialectician is only interested the genuine refutation of an opponent. Just as the chief product of the art of dialectic is genuine refutation, the chief product of the art of sophistic is sophistical refutation. For this reason, our understanding of the dialectician underlies our understanding of the sophist.

Sophistic, like dialectic, is a combative ability. Although the sophist's first desire is to appear to be a first philosopher, he does so through the means of sham dialectic (SE 179b27-29, NE 1164a22-33, Meta 1004bl7-26). It is proper to the wise man to expose error so the sophist desires to appear to expose error through refutation no matter what position his interlocutor takes (SE 165a20-31). Like the dialectician, he must foresee the positions his interlocutor is willing to accept and determine the most efficient place to mount an attack. Sophistic is a heuristic ability to determine which endoxes (plausible opinions), or apparent endoxes, his interlocutor will accept in order to syllogize, or seem to syllogize, to the answerer's apparent refutation. Like the dialectician, a skillful

sophist is one who—seeing all the available means—is able to achieve his goal by the best available means.

Moreover, the premises of sophistical reasoning can be endoxes or they can be false imitations of endoxes. Sophistical and dialectical reasoning differ in that dialectical premises must be genuine endoxes and the syllogizing must be true syllogizing, while in sophistical reasoning either the premises are not genuine endoxes or the syllogizing is not genuine syllogizing or both. For Aristotle notes, "Not everything which appears to be an endox is an endox. For nothing in what is called endoxic has its likelihood on the surface, as principles of contentious argument do."[101] Take for instance the previous example: happiness is life's end, but life's end is death, and therefore happiness is death. Given the meaning of "end" required for the syllogism to follow, happiness is not life's end, but it appears to be endox because the word "end" has another meaning. In some cases, what is claimed to be an endox, and may even seem to be, is not.

The sophist gravitates toward the freedom and universality of dialectic. The unlimited nature of dialectic appeals to the sophist—who is indifferent to what position is refuted. Afterall, he has no regard for the truth. The sophist has no time for demonstration which is bound to one side of a contradiction. Instead, he seizes every opportunity to illustrate his ability by overcoming opponents through apparent

[101] οὐ γὰρ πᾶν τὸ φαινόμενον ἔνδοξον καὶ ἔστιν ἔνδοξον. οὐθὲν γὰρ τῶν λεγομένων ἐνδόξων ἐπιπόλαιον ἔχει παντελῶς τὴν φαντασίαν, καθάπερ περὶ τὰς τῶν ἐριστικῶν λόγων ἀρχὰς συμβέβηκεν ἔχειν (Top 100b26-29).

refutation. He must therefore be able to argue for the contradiction of whatever position his interlocutor may take. Again, the universal applicability of dialectic attracts the sophist who desires at all times to appear wise to overcome his opponent no matter what subject is being discussed. The abilities and properties of dialectic fit the wishes of a man wishing to appear wise rather than actually having the properties of wisdom itself.

II.VIII Fallacies as Places

The connection between the *Sophistical Refutations* and the *Topics* sheds light on a second—and telling—name by which Aristotle refers to the fallacies in the *Sophistical Refutations*. In addition to ways (τρόποι), Aristotle refers to fallacies as places (τόποι). The nature of place as Aristotle uses it in his *Organon* is a highly-disputed question. While he unfolds hundreds of dialectical places in Books II-VII of the *Topics*, he nevertheless says little explicitly about the nature of places in the *Topics* or in the *Sophistical Refutations*. Scholars have made many and varied attempts to define a dialectical place.[102] Despite the question being a controversial and difficult one, it seems an inquiry is worthwhile if only to shed a little light on Aristotle's notion of sophistical place.

[102] For the many and various attempts to define places, cf. Drehe, 2016, pp. 132-133. Cf. also Slomkowski, 1997, pp. 50-58.

Dialectical Places

To begin, Aristotle clearly indicates many texts containing examples of places within them, but he does not clearly indicate what part of the text is the place and what is not. The texts include not just the place but also a strategy for its use and examples (Top 111a14-33, 115a15-25, 123b20-25, 109a-b, 120b, 130b, 140a). A further problem is that Aristotle does not always use place in the same sense, although all his senses are related.[103] This difficulty is compounded when he extends the notion of genuine places to cover sophistical places too. Finally, Aristotle also calls places elements (στοιχεῖα), but does not tell us that he considers the two names to be synonyms except in the *Rhetoric* (Rhet 1396b22, 1403a18ff).[104]

In its common usage, a place is an extrinsic and most universal principle which affirms relations between logical intentions. This principle is a source of more particular endoxes. Dialectical places are generally, but not exclusively, [105] conditional statements about logical or second intentions—concepts which signify the relations that first

[103] Cf. for instance, Top, 155b5 vs. 155a37. Smith claims that one "dimension" of a place "is a point at which the answerer's position may be probed of attack." Another dimension is that each place is "a location at which many arguments may be found by appropriate substitutions in the relevant form." In one case, place signifies the vulnerable position in the answerers defense. In the other case, it signifies a place to look for abundant means of attacking any position. Cf. Smith, 1997, xxvii.

[104] I take it that this sense of element (στοιχεῖα) is analogous to Shruck and White's use of element in their *Elements of Style* or Euclid's use of the word in his *Elements*.

[105] Dialectical places are generally composed of logical intentions. They are sometimes composed of highly universal real intentions such as the notion of contrary or the notions of more and less. What is absolutely necessary is that places be composed of terms that are most universal so that the place itself has universal applicability. Smith notes that this inconsistency is not surprising because the *Topics* is a practical treatise. Aristotle provides his readers with places insofar as they are useful, not insofar as they fit into a theoretical categorization. Cf. Smith, 1997, p. xxxiii.

intentions have insofar as they are known, such as genus, species, predicate, subject, etc. Sometimes places are also composed of most universal real intentions such as the concept of contrary or opposite, or more and less.[106] Places provide the framework underlying endoxes. A few examples will help to clarify this understanding of place:

Example #1
Place: If the predicate belongs to a less likely subject, then it will belong to a more likely subject (Top 115a6-8, Rhet 1397b13-15).
Endox: If the sense powers are immaterial, then the intellect is immaterial.
Dialectical Syllogism:

1) If the sense powers are immaterial, then the intellect is immaterial.
2) The sense powers are immaterial.
3) The intellect is immaterial.

Alternative Endoxes: If the body survives death, then the soul survives death (*Phaedo* 78b-80e). If theft is always wrong, then murder is always wrong. If locomotion is continuous, then a place is continuous.

Example #2:
Place: If the predicate is the genus of the subject, then the predicate's opposite will be the genus of the subject's opposite (Top 125a25-33).
Endox: If knowledge is a kind of sense perception, then the object of knowledge will be a kind of sense object.[107]
Dialectical Syllogism:

1) If knowledge is a kind of sense perception, then the object of knowledge is a kind of sense object.
2) The object of knowledge is not a kind of sense object.
3) Knowledge is not a kind of sense perception.

Alternative Endox: If pain is an evil, then pleasure is a good.

[106] The notion of places as most universal propositions is present in (ps) Thomas Aquinas' *De fallaciis*. The place *"dicitur maxima"* (1976, c. 4).
[107] While is might seem odd, knowledge and its object as well as sense and its object are kinds of opposites. For knowledge is always of the knowable and sense of the sensible. In some way, they are relative to one another respectively. Aristotle lists relatives as one of his four kinds of opposites.

This characterization of the nature of place is in line with what the ancient's description of it. Alexander of Aphrodisias claimed that "the place (τόπος), as Theophrastus says, is a principle (ἀρχή) from which we take the principles concerning each matter by focusing our thought upon it."[108] A place is principle insofar as we can use it as a source for a more particular premise—which also may be called principles—directly pertinent to a given subject matter. Theophrastus, Aristotle's longtime associate, says that a place is determinate in outline but indeterminate as to the particulars.[109] If a place is made up of logical intentions, then it will be indeterminate with regard to the particulars—the actual instances of logical intentions—but will determine their relation in outline. The dialectical place in our second example does not determine what particular genus or subject in the endox derived from the place will be. What this place does is articulate the exact relation between the particular subject and genus. A dialectical place is a proposition composed of most universal intentions—such as logical intentions—that may be replaced by more specific content to make endoxes appropriate to the question at hand. The dialectical place, then, is like a template for dialectical premises. A template provides an outline without determining matter or content. In the same way, a dialectical place provides the outline of an endox without fully determining its specific terms.

[108] Van Ophuijsen, 2001, 5.21-23, p. 7 [modified translation].
[109] Cf. Van Ophuijsen, 2001, 5.21-25, p. 7.

The way Aristotle describes place is in harmony with understanding it as a universal principle composed of logical intentions which provides an outline for more particular endoxes. Aristotle refers to place both as a principle (ἀρχή) and as a common proposition (πρότασις κοινή).[110] Clearly, the dialectical places given in our examples are principles[111] and commons propositions from which one can derive more concrete endoxes. Aristotle emphasizes that places are common to all disciplines:

> Just as in the *Topics*, so also in this work, a distinction should be made between kinds and places from which they are to be taken. By "kinds" I mean the premises specific to each genus [of knowledge], and by the places those common to all.[112]

Aristotle characterizes places as common to all. Logical intentions are most universal concepts insofar as they name relations between concepts that will apply regardless of

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[110] Cf. Slomkowski, 1997, p. 47 and Top 163b27ff.

[111] In logic, there are different senses in which a statement may be a principle of a syllogism. On the one hand, A statement may be a principle of a syllogism insofar as it is an unmediated premise of that syllogism. The places are far too abstract to be acceptable to the common interlocutor. Contrary to Slomkowski's opinion, dialectical places are not endoxes, but they are the source of endoxes. Cf. Slomkowski, 1997, p. 49. On the other hand, a statement can also be called a principle of a syllogism as an axiom. For instance, the principle of non-contradiction underlies all premises but is not a premise in a syllogism. Thus, Aristotle calls the principle of non-contradiction of a principle, not just of demonstrations, but of other axioms (Meta 1005b33-34). A principle may be virtually present in a syllogism as the foundation of one of the premises. A place is ordered to a dialectical syllogism in this way. That is, a place is virtually present in the articulation of the endox and states the foundation of that endox just as the principle of non-contradiction gives the foundation of any statement.

[112] καθάπερ οὖν καὶ ἐν τοῖς Τοπικοῖς, καὶ ἐνταῦθα διαιρετέον τῶν ἐνθυμημάτων τά τε εἴδη καὶ τοὺς τόπους ἐξ ὧν ληπτέον. λέγω δ' εἴδη μὲν τὰς καθ' ἕκαστον γένος ἰδίας προτάσεις, τόπους δὲ τοὺς κοινοὺς ὁμοίως πάντων (Rhet 1358a29-33). Aristotle divides common places from proper principles (ἴδια) which can only be applied to a specific subject matter. He then names the proper places as kinds (εἴδη) and opposes them to common places which retain the name place. It is important to keep in mind that Aristotle is willing to use place with a number of senses. Paul Slomkowski, when commenting on this passage, notes that there are good reasons to call these special principles places but that Aristotle never does (1997, n. 24, p. 48). It appears, therefore, that Aristotle considered universal applicability to be essentially connected with the notion of place.

the subject matter, because every subject matter will contain genera, species, subjects, predicates, etc. Thus, if places are conditional statement involving logical intentions, they will have the property of universal applicability.

This interpretation also fits with Aristotle's description of the function of place. Aristotle characterizes places as providing abundant means of attacking (ἐπιχειρεῖν) any problem (Top 155a37). Following this characterization, one may say that a place is a source of the dialectician's heuristic ability to find all possible endoxes acceptable to his interlocutor. Accordingly, Aristotle recommends that these universal propositions be committed to memory rather than arguments themselves because it is sufficiently difficult to have at hand the places alone (Top 163b31-33).[113] Any place contains many potential premises within itself. Memorizing one principle gives the dialectician the ability to bring forth many endoxes in concrete disputations. For example, the dialectical place, "the increase of the subject will include the increase of the predicate" (cf. Top 114b37-115a14), includes many premises in various disciplines: "if heat is the motion of molecules then the increase in the motion of a molecules will entail an increase in heat," and "if pride is the cause of envy, then he who is more proud will be more envious," and "if being is one as such, then a higher grade of being will have a higher grade of unity."

[113]. Cf. Slomkowski for an excellent commentary on this passage, pp. 46-47.

The place must be both a principle of and distinct from the endox. Aristotle defines rhetorical places as follows: "I call the place and the element the same, that into which many enthymemes fall."[114] Enthymemes are arguments used most often in rhetoric. More generally then, a place is a universal statement under which many arguments fall—whether rhetorical, dialectical, or sophistical. How can many arguments fall under a place? A place is an extrinsic foundation of endoxes; it is virtually present in a dialectical syllogism as the foundation of one of the premises. The place is not a premise of a dialectical syllogism, but rather the source from which it is brought out. Still, the force of an endox is derived from its place. That is, a place is an articulation of the endox's acceptability on a more universal level. If an interlocutor will accept any particular endox, it is because he holds the more general position articulated in the endox's place. In sum, dialectical place is extrincic to the endox but provides its structure and force.

Finally, this interpretation of dialectical place shares compelling likeness to Aristotle's account of physical place.[115] Physical place is the "first immobile limit of the containing body" (Phys 212a21-22). For Aristotle, place is the inner limit of the containing body that coincides with the shape of the contained body. The physical place

[114] τὸ γὰρ αὐτὸ λέγω στοιχεῖον καὶ τόπον· ἔστιν γὰρ στοιχεῖον καὶ τόπος εἰς ὃ πολλὰ ἐνθυμήματα ἐμπίπτει (Rhet 1403a17-18).

[115] Yvan Pelletier highlights the close relationship between dialectical and natural place (1991, pp. 323-326).

limits and is extrinsic to the placed; the physical place of the coffee is the inner surface of the mug. Likewise, a dialectical place is distinct from but limits—metaphorically of course—the endox it contains because the dialectical place outlines the endox's structure while being extrinsic to the endox. For example, the dialectical place, "if the predicate is the genus of the subject, then the predicate's opposite will be the genus of the subject's opposite," outlines different endoxes that may fall under it. If a dialectician cannot locate the premises of his syllogism in a more particular formulation of a place, then he should find another place to look for endoxes which will act as premises in his dialectical syllogism.

Sophistical Places

Aristotle carries the word place over to signify a principle of sophistical refutation. In the *Sophistical Refutations*, Aristotle lays out thirteen places where a sophist may look for premises and syllogisms that will appear to refute an interlocutor. Sophistical refutations are "from these places" (SE 166b20-21). Like dialectical places, sophistical places are distinct from the premises of the refutation, and yet remain sources of these premises. The human mind is prone to mix up the senses of words, and because a valid syllogism with four terms is impossible, equivocation is a good place to find syllogisms that will appear to refute one's opponent. Like dialectical places fallacies in the *Sophistical Refutations* have universal applicability. A sophist can use the fallacy of equivocation in any argument because every discipline contains words that

one can use equivocally. Again, fallacies are similar to dialectical places in their use: rather than memorizing specific sophistical arguments, the sophist will memorize sophistical places—sources from which he may draw an unlimited number of sophistical arguments, and more importantly, the sophistical arguments with premises which his interlocutor will grant.

(Ps) Aquinas observes, "just as the dialectical argument has its strength from a true place, so also the sophistical argument has its apparent strength from an apparent place."[116] A sophistical place may be expressed as a proposition that provides the foundation for the apparent reasonability of the sophism. For instance, the fallacy of equivocation may be expressed as a sophistical place in the following way: If the same name is used two times in an argument, the name bears the same meaning. If an interlocutor is taken in by the fallacy of equivocation, it is because he is assuming—at least in this particular instance—that proposition.

That said, unlike dialectical places, sophistical places are not presented as universal conditional statements of logical intentions; they are presented as common distinctions—such as the distinction between the different senses of a word—that a sophist may exploit. Aristotle holds that false refutations are infinite. Consequently, he argues that one ought to grasp only the places that are "common to every art and

[116] *sicut argumentatio dialectica firmitatem habet ex loco vero, ita argumentatio sophistica apparentem firmitatem habet ex loco apparenti* (1976, c. 4).

ability" (cf. SE 170a30-170b2). The sophist has in hand thirteen distinctions that men commonly overlook in every discipline, and thus he carries the means to produce apparent endoxes and syllogisms for the purpose of bringing about an apparent refutation of his opponent.

One should note that the *Sophistical Refutations* also considers places which are not sources of sophistical refutation, but rather of the sophist's secondary aims (cf. SE 172b9-174a16). When a sophist despairs of refuting his interlocutor, his means of appearing wise are not exhausted; he knows places to look for arguments that will lead his interlocutor to say something manifestly false, or lead him to say a paradox, or lead him to babble, or lead him commit a solecism.

Introduction III: Uses and Division of Sophistical Refutations

III.I Uses of Dialectic in General

We have examined how a sophist seeks the sophistical art with the desire to appear wise. Aristotle, however, considers knowledge of the art of sophistic as a branch of the art of dialectic. Why would the dialectician seek after knowledge of the art of sophistic? It seems that the dialectician's purposes for studying dialectic would in some way apply to his reasons for studying sophistic. Aristotle gives three uses (χρήσιμοι) for the study of dialectic:

> Let us say for how many and for what things the treatise is useful. Surely, it is useful for three things: for exercise, for conversation, and for the philosophical sciences. It is very clear from the following considerations that it is useful for exercise. For, when we have a method, we will be able to attack what is proposed more easily. [It is useful] for conversation, because after we have enumerated the opinions of the many, we will enter discussion with them not from alien teachings, but from their own, changing whatever they do not seem to say to us well. [It is useful] for the philosophical sciences, because, being able to puzzle on both sides, we will more easily spot the true and the false in each thing. Moreover, [it is useful] with regard to what are the first things concerning each science. For it is impossible to say something about these from what are the proper principles of each proposed science, since the first things are the principles of all; it is necessary to go through what concerns them through the endoxes about each thing. This is proper or most proper to dialectic. For being inquisitive, it is the road to the principles of all methods.[117]

[117] [Ἐ]ιπεῖν πρὸς πόσα τε καὶ τίνα χρήσιμος ἡ πραγματεία. ἔστι δὴ πρὸς τρία, πρὸς γυμνασίαν, πρὸς τὰς ἐντεύξεις, πρὸς τὰς κατὰ φιλοσοφίαν ἐπιστήμας. ὅτι μὲν οὖν πρὸς γυμνασίαν χρήσιμος, ἐξ αὐτῶν καταφανές ἐστι· μέθοδον γὰρ ἔχοντες ῥᾷον περὶ τοῦ προτεθέντος ἐπιχειρεῖν δυνησόμεθα· πρὸς δὲ τὰς ἐντεύξεις, διότι τὰς τῶν πολλῶν κατηριθμημένοι δόξας οὐκ ἐκ τῶν ἀλλοτρίων ἀλλ' ἐκ τῶν οἰκείων δογμάτων ὁμιλήσομεν πρὸς αὐτούς, μεταβιβάζοντες ὅ τι ἂν μὴ καλῶς φαίνωνται λέγειν ἡμῖν· πρὸς δὲ τὰς κατὰ φιλοσοφίαν ἐπιστήμας, ὅτι δυνάμενοι πρὸς ἀμφότερα διαπορῆσαι ῥᾷον ἐν ἑκάστοις κατοψόμεθα τἀληθές τε καὶ τὸ ψεῦδος· ἔτι δὲ πρὸς τὰ πρῶτα τῶν περὶ ἑκάστην ἐπιστήμην. ἐκ μὲν γὰρ τῶν οἰκείων τῶν κατὰ τὴν προτεθεῖσαν ἐπιστήμην ἀρχῶν ἀδύνατον εἰπεῖν τι περὶ αὐτῶν,

In this passage, Aristotle gives three uses for a treatise on dialectic: exercise, conversation, and philosophic inquiry. Under philosophic inquiry, he gives two sub-uses: a) being able to puzzle on both sides of a question and b) knowing the road to the principles of all the individual sciences.

Exercise: Aristotle claims that "the characteristic activities (ἐργασίας) of all abilities (δυνάμεις) or arts require prior education and prior training."[118] It is well known that the memory and imagination require exercise, yet we find that men are prone to err, especially when they first begin to philosophize. This is a sign that our mind can be weak too.[119] Just as through a lack of exercise the body grows weak and inert, so too the mind grows weak from disuse.

Dialectic is the form of reaoning particularly proportioned for exercise. An athlete begins with easier exercises before advancing to perform difficult feats. No one training to set the bench press world record begins exercising for the feat by attempting to bench press 1000 pounds. Similarly, one begins to train the mind with easier arguments, that is, dialectical syllogisms, before one can complete more difficult arguments like demonstrations. Endoxes are much easier to find than first principles.

ἐπειδὴ πρῶται αἱ ἀρχαὶ ἁπάντων εἰσί, διὰ δὲ τῶν περὶ ἕκαστα ἐνδόξων ἀνάγκη περὶ αὐτῶν διελθεῖν. τοῦτο δ' ἴδιον ἢ μάλιστα οἰκεῖον τῆς διαλεκτικῆς ἐστιν· ἐξεταστικὴ γὰρ οὖσα πρὸς τὰς ἁπασῶν τῶν μεθόδων ἀρχὰς ὁδὸν ἔχει (Top 101a25-b5).

[118] ἔτι δὲ πρὸς πάσας δυνάμεις καὶ τέχνας ἔστιν ἃ δεῖ προπαιδεύεσθαι καὶ προεθίζεσθαι πρὸς τὰς ἑκάστων ἐργασίας (Pol 1337a19-20).

[119] Cf. D. Berquist, 1964, pp. 176-177.

For this reason, the benefit of the dialectical method—by which one may exercise his reason—extends beyond dialectical argument. Exercising the mind in the practice of dialectic will better enable one to engage in any form of syllogizing.

In addition, dialectic is particularly useful for exercise insofar as it involves competition. Since the disputation involves an opponent, the dialectician must be able to reason to contradictory conclusions. As we have seen, Aristotle's specific dialectical method sets up the discussion as a kind of debate between two interlocutors in competition. Competition encourages preparation, focus, and reflection on the arguments engaged in the dialogue. Each is striving to achieve victory, and the honor of publicly refuting his opponent. The glory involved in dialectic may serve as a stepping to demonstrative reasoning. Hence, the dialectical argument is the best form to use as exercise because it starts from endoxes and reasons to contradictory conclusions.

Conversation: In the *Rhetoric*, Aristotle gives one of the purposes of rhetoric as persuading in moments when teaching is impossible. He says that "before some audiences, not even the possession of the most exact knowledge will make it easy for what we say to produce conviction" (Rhet 1355a24-26, trans. Corbett). Not every conversation can lead to scientific knowledge. For various reasons—some of them fallacious—people may not accept true and primary principles in conversation. Aristotle advises that in such situations one must use "notions possessed by everybody." Dialectic is particularly useful in these conversations because it reasons

from endoxes, that is, common opinions or those of the wise or those of experts in a particular discipline. This property gives one the ability to enter into a dispute with anyone and to reason from opinions that are not "alien" from the opponent's own. Most, if not all, of an opponent's views will be common opinions or the judgments of experts whom he has heard because these are the views that seem naturally reasonable to the mind. No argument can be more convincing to an interlocutor than one from his own opinions, and thus dialectic is the best form of argument when teaching is impossible.

Dialectic is even useful in conversation when refutation is impossible. If one's interlocutor does not accept the dialectician's premises, then there is no way to refute him. If persuasion is simply impossible, dialectic will enable one to come as near as possible to whatever "success the circumstances of each particular case allow" (Rhet 1355b12). Convincing an interlocutor of a position admits of degrees: sometimes the best possible result is to make him open to the idea that his position is not sound as is the result in most Platonic dialogues.

Uses for Philosophical Science: In United States law, whenever the state accuses a citizen of a crime, the defendant has a right to legal counsel and defense. This practice assures that the jury hears arguments on both sides of the case before determining a verdict and facilitates a fitting rigor and decisiveness. The human mind is better able to

see the truth when the reasons for both sides of the argument are known.[120] In the same way, dialectic is useful for philosophical inquiry because only dialectic—and its counterpart rhetoric—give one the ability to argue for either side of a contradiction (Rhet 1355a35). Aristotle does not hold that the purpose of this ability is to make people believe something wrong (cf. Rhet 1355a32), but in fact to make clearer the reasons on both sides of the question. Possessing the ability to puzzle on both sides, "we will more easily spot the true and the false in each thing" (Top 101a35-36).[121] A contrary arguments may help one realize where the fundamental difficulty is, and thus one knows where to devote his attention. When one sees all the reasons on both sides, his mind will incline toward the truth, for the "underlying facts do not lend themselves equally well to contrary views."[122]

Aristotle supplies a second reason why the study of dialectic is important to the philosopher. It is useful for the discovery of "the proper principles of each proposed science." How the practice of dialectic aids the mind in this discovery is a notoriously

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[120] Aristotle makes this direct comparison between Greek court and jury practices and the practice of dialectic (Meta 995b3-5).

[121]. Thus, Aristotle claims in the *Nicomachean Ethics*, "We must, as in all other cases, set the phenomena before us and, after first discussing the difficulties, go on to demonstrate, if possible, the truth of all endoxes about these affections or, failing this, of the greater number and most authoritative; for if we resolve the difficulties and leave the endoxes undisturbed, we shall have demonstrated the case sufficiently" (NE 1145b2-7, modified Barnes translation). Cf. also EE 1235b13-18, Phys 211a2-11. Aristotle believes that reasonable arguments can contain part of the truth. This is why he begins his major works by recounting the positions of previous philosophers on both sides of the question. For this reason, Aristotle's final solution to philosophical problems will reveal why his predecessors held the positions that they did.

[122] Rhet 1355a38.

difficult question.[123] I will not treat of the matter fully here, but I will make a few small points. First, this use of dialectic is not entirely distinct from the first philosophical use. One way in which dialectic helps one come to know first principles is that it allows one to see the reasons on both sides of a contradiction. Take, for example, definitions which are proper principles in a demonstrative science.[124] In the *Physics*, Aristotle gives dialectical reasons for and against the existence of place (Phys 208b27-209a31) and later confirms his definition of place by manifesting how it resolves those difficulties (ἀποῥίαι, Phys 212b23-213a11. Cf. also Phys 211a2-11). In the *De Anima*, Aristotle prepares his reader to understand that the soul is a substantial form by opposing the reasons for saying that the soul is a complete substance with those saying that the soul is an accidental form.[125]

Second, since we cannot demonstrate the truth of first principles because they are themselves the ultimate principles of all demonstration, we must reason about them using some less rigorous method: the dialectical. Dialectical arguments cannot justify the truth of the first principles, but they help us come to a clearer grasp of them. Aristotle says in the *Topics*, that the third and fourth tools of dialectic,[126] seeing difference and seeing likeness, are useful for definition (Top 108a38-b12). And the first

[123] For an account of numerous but by no means all the views on this subject, cf. Sim, ix-xxv.
[124] Cf. for example, APo 76a37-41 where Aristotle distinguishes the proper and common principles of a science and gives definitions as examples of proper principles. Cf. also APo 72a14-24.
[125] Cf. for instance, DeAn 404b30–405b30 vs. 407b27-408a33.
[126] Aristotle lists his four tools of dialectic at Top 105a21-25.

tool, procuring premises, is useful for seeing definitions that others have discovered.[127] In fact, all the different kinds places Aristotle treats in *Topics* II-VII contribute the examination of definition. Books II and III consider places about whether something belongs or can be said of something or not. Obviously, all definitions must be said of what they define. Book IV considers places for determining whether something is said of something essentially; Obviously all definitions are said essentially. Then, in Book V, Aristotle unfolds places for seeing whether what is said of something is convertible and the definition is convertible (cf. Top 109a13-14). Books VI and VII consider places for determining whether predicates bring out fully the nature of the thing it is said of, i.e., determining whether or not that are definitions. So, all of Aristotle's books considering places can be seen as ordered to coming to know definitions.

Third, dialectic cannot be the whole road to knowledge of first principles. One must distinguish the common road of coming to know the first principles from the different roads that are proper to each science. For instance, in geometry the discovery of proper principles often depends on imagining the correct lines or supposing the thing one is trying to prove and then "analyzing" back to first principles or demonstrated propositions.[128] Knowing the proper principles in ethics requires experience which is one reason why the young are not suitable students for this

[127] Aristotle discusses the ways of compiling and ordering these propositions at Top 105a34-b36.
[128] Cf. Byrne, 2001, pp. 409-413 and 420-421. As Byrne points out, "not only rules of logic but also non-deductive ingenuity is indispensable" to the process of geometrical analysis (1997, pp. 15-20 and 123-146).

discipline (NE 1095a2-4). Only the first philosopher can have unqualified knowledge of the principle of non-contradiction.[129] The use of dialectic may be essential to recognizing first principles, but it is not the some total of the path to first principles in any given science.

III.II Uses of Sophistic in Correlation to Uses of Dialectic in General

Can all of the uses of dialectic apply to the dialectical art's subsection, the art of sophistic? In its way, the study of sophistic lends a hand to all of the uses given for dialectic. Practicing a method of tying and untying sophistical arguments exercises the mind. In the first place, Aristotle exhorts us to be thankful not only for those who have spoken the truth but also for those who express superficial (ἐπιπόλαιος) opinions. For, wrestling with superficial opinions exercises (προασκεῖν) our habit.[130] In other words, dealing with opinions resulting from superficial reasoning provides training necessary for developing healthy mental habits. In another way, the study of sophistic is useful for determining the type of intellectual exercise that will lead to good intellectual habits. It is important in intellectual exercise to reason correctly to avoid the development of bad habits. For by repeated exercise one may form a productive habit that is not in cooperation with true reason: an ἀτεχνία (cf. NE 1140a20-22). In this way, the study of

[129] Cf. Wians 2006, 343-345.
[130] Cf. Meta 993b11-18. Unfortunately, Apostle's translation of this passage is misleading. Jonathan Barnes's translation is superior in this regard.

the art of sophistic teaches the dialectician which arguments to avoid and thereby limits exercise to training that will determine one's reason to true syllogizing.

Moreover, the study of sophistic can also be an aid on the road to knowledge of first principles. For Aristotle, it is proper to the wise man to defend first principles (Meta 1005a19ff). The wise man not only knows first principles, but he will not fall victim to sophisms about them. Everyone implicitly uses the principle of non-contradiction, but the wise man states it explicitly and defends it from sophistical objections. Implicitly assuming a first principle is one thing; however, its exact, explicit, firm, and commensurately universal grasp is another.[131] Accordingly, Plato's dialogues often exemplify that it is possible for a person to think that he knows what he does not know.[132] Aristotle makes the surprising and illuminating observation that if one can make this mistake in one direction, then he can make it in the other direction (Phys 193a5-10). That is, a man can think that he does not know what he does know. It is possible to come upon sophistical objections to first principles and not know how to solve them and consequently believe that there is no way to solve them (Meta 1005b35-1006a5). One could easily give a sophistical argument that in some cases the part is more than the whole: Animal is part of the definition of man, but there are more animals than men. Therefore the part is more than the whole. This equivocation on

[131] Cf. Augros, 2016, p. 13.
[132] Cf. for instance, Meno 70a1-80a1.

intentional and extensional parts could lead a person to deny a self-evident first principle: the whole is more than its part. In this way, the study of sophistical refutations may remove impediments to the mind firmly assenting to first principles. Surely, this is useful on the road to the exact, explicit, stable, and commensurately universal knowledge of first principles.[133]

Finally, the art of sophistical refutations is useful in conversation. The only way to defend against falling into sophistical traps is by understanding the way they work and how to untie them. The distinction between the sophist and the dialectician is not one of knowledge, but is one of wish; the sophist uses sophistical argument knowingly, and the dialectician does not—though he may do so unconsciously because of the deceptive nature of sophistical refutation. Sophistical refutations can be extraordinarily deceptive. Aristotle goes so far as to say that the fallacy of the accident fools even those with scientific knowledge (ἐπιστήμων, SE 168b6). A dialectician should study the fallacies, not to use them but to defend himself when others give them or when he unintentionally thinks them up himself.

One can see the need for the dialectician—who cares for the intellect—to study fallacies in an analogy to the doctor who cares for the body. The doctor must not only

[133] One might argue, that if "imparting a deeper grasp of principles" is the main task of a teacher, then dialectic (and even sophistic) will be irreplaceable pedagogical tools which, of course, explains why such large portions of Aristotle's great philosophical treatises are dialectical. Cf. Wians 1989, pp. 245-253, especially 250-251.

know the causes of health but must also know the causes of sickness. Similarly, the philosopher must not only know genuine reasoning but also fallacious reasoning. Again, a good doctor is not content with restoring health, but also prescribes preventative medicines and diets. In a similar way, the philosopher is not content merely to untie sophisms when he happens upon them. He further desires to ensure the health of the mind by inoculating against certain diseases of reason by studying them in advance.

III.III Two Uses Proper to Sophistic for Philosophy

In addition to the uses that Aristotle gives for the study of dialectic in general, he gives uses for the study of sophistic proper. Aristotle says that the study of sophistic has two uses for philosophy: first, knowledge of the various senses in which things may be said, and second, avoiding error when inquiring alone (SE 175a5-9). The explanation of how knowledge of sophistic is useful in conversation applies to the second use. If someone can be fooled in conversation with another, then he can also be fooled while thinking alone.

The first use, however, adds to the previous discussion. It seems that the first use Aristotle gives is a concrete example of something that is more universal in principle. While Aristotle says that one use of the study of sophistic is the appreciation of the distinct senses in which things may be said, the untying of sophistical arguments leads to an appreciation of other distinctions useful to the philosopher too. In the same way

that dialectical reasoning ties a knot the untying of which leads to the discovery of some truth,[134] sophistical reasoning ties a knot the untying of which does not uncover some new truth but may bring to light an important and overlooked distinction. The philosopher's primary use of the treatment of fallacies is bringing to light overlooked distinctions.

As we saw previously, the cause of deception in fallacies is their likeness to real syllogisms whereby one fails to distinguish between the two. Thus, failure to make distinctions is the root of fallacious deception while the ability to make distinctions is the heart of the art of untying fallacies. Untying the fallacy of equivocation leads one to distinguish the different senses of a word. Untying the fallacy of the accident leads one to distinguish between what is so as such and what is so accidentally. Untying the fallacy of what is simply and what is in a certain respect trains one to distinguish between what is so simply and what is so insome respect, and so on Moreover, the distinctions involved in untying sophistical refutations help one distinctly grasp what a syllogism is and what a contradiction is. These distinctions and notions are indispensable for the philosopher.

[134] "[F]or the answers successfully arrived at are solutions (λύσις) to difficulties (ἀπορία) previously discussed" (Meta 995a28-30, trans. Apostle). According to Apostle, difficulty is "an uncertainty as to whether or not something is or is not the case, in view of arguments favoring both sides" (1976, p. 457). Cf. also Phys 211a8-12.

Aristotle's use of the distinctions that sophists exploit is prolific. Aristotle uses the distinction between what is so simply (ἁπλῶς) and what is so in some respect (πῃ) in many cases: to explain why his predecessors did not think that good was a cause (Meta 988b15), to explain that first philosophy does not treat accidental (κατὰ συμβεβηκὸς) being (Meta 1026a33-1027a28), to argue that first philosophy is chiefly about substance (Meta 1028a 10-1028b), to show how 'what it was to be' (τὸ τί ἦν εἶναι) and definition belong to the categories (Meta 1030a17-1031a5), to explain how there is and is not a demonstration of first principles (Meta 1062a30-31), to distinguish different senses of best regime (Pol 1288b20-40), to explain the natural road of inquiry in the physical sciences (Phys 184a9-b16, cf. also NE 1095b3-5), to distinguish between substantial and accidental change (Phys 190a30-b10), and so on. Aristotle of course also uses the distinction to untie sophistical arguments of his predecessors (cf. for instance, APo 71a29-b9). This distinction between what is so simply and what is so in some respect is so prolific that without understanding it, one cannot understand Aristotelian philosophy.

The distinction between what is so as such or in itself (καθ' αύτό) and what is so according to accident (κατὰ συμβεβηκός) is equally prevalent in Aristotle's work. Aristotle solves Heraclitus' change paradox, "cold things become warm, and the warm becomes cold; the wet dries, and the dry becomes wet" (DK 126), by arguing that one contrary comes to be from the other only according to accident, but that it comes to be

from the underlying not according to accident (Phys 190b25-30). Again, this distinction is also necessary to understand the subject of the *Physics* because Aristotle defines nature as a certain principle and cause of moving and of resting in that which it is, primarily, *in itself* and not *according to accident* (Phys 192b20-23). In one of Aristotle's corollaries to his four senses of cause, he states that many things are the cause of the same thing and not according to accident (Phys 194b16-195a5). Moreover, Aristotle bases his distinction between things that happen by chance and things that happen for the sake of something on the distinction made between what comes to be in itself and what comes to be according to accident (Phys 196b10-197a7). While these examples comprise a relatively small number of Aristotle's uses of the distinction, they help to manifest its importance.

In sum, the treatment of sophistical refutations is useful because the distinctions necessary to untie sophistical refutations are fundamental to comprehending Aristotle's philosophy as a whole. Since untying sophistical refutations requires making such distinctions, the experience and art of untying sophistical refutations necessarily involves familiarity with making these distinctions. The study of the art of sophistic, therefore, is an occasion for gaining knowledge and experience essential for understanding Aristotle's corpus.

A Third Use Proper to Sophistic for the Philosopher

While Aristotle initially claims that he will give two uses for the study of sophistic in philosophy, he adds a third use for the philosopher himself, namely, that the philosopher not appear to be refuted by fallacies to his audience (SE 175a12-30). Even if a fallacious reasoning used in dialogue does not fool the philosopher, there is always the danger that bystanders may be fooled. The philosopher will not be able to acquire the excellence of producing another like himself if he cannot teach. The student must trust that his teacher has knowledge worthy of understanding for the endeavor to be successful (SE 165b2-3). The philosopher must learn how to expose fallacious reasoning plainly and avoid even the appearance of refutation of the truth.

The philosopher's desire to prevent the appearance of refutation does not make him a sophist because he will not deceive others to gain this appearance. While Aristotle's treatment of the fallacies in the *Sophistical Refutations* has a tone of indifference as to whether or not one will use knowledge of sophistic to trick and manipulate his neighbor, it is clear that Aristotle wrote the treatise to further the truth and not vice versa. Although Aristotle considers the reputation of a philosopher to be important, it is secondary to the crown of virtue (cf. NE 1123a34-1125a34). He has a pious concern for the truth (NE 1096a11-17). For virtue as such is ordered to some good, and the good man's highest faculty aims at is the truth. What is more, Aristotle does not go out of his way to defend the use of sophistic the way he does to defend the use of

Rhetoric. He does not counsel the apparent untying of sophistic through sophistical reasoning. Moreover, Aristotle counsels that any "art, or science, which makes the body or soul or mind of the free man less fit for the practice or exercise of virtue, is vulgar" (Pol 1337b7-8, trans. Jowett). The philosopher desires knowledge of the art of sophistic in order to maintain his reputation, but he does not do so at the expense of the truth.

III.IV Division of the Sophistical Refutations

The *Sophistical Refutations* is divided into two main parts. In fact, Albert the Great turns the work into two books with this division. Chapters I-XV are ordered to the discussion of sophistical refutations from the perspective of the sophistic questioner. The second part of the treatise, Chapters XVI-XXXIV, is ordered to the discussion of sophistical refutations from the point of view of the answerer seeking to untie the sophist's knots.

In more detail, after a *prooemium* to the whole work in Chapters I-III, Aristotle considers sophistical aims through the lense of the sophist's practical intellect. The practical intellect begins with its knowledge of its chief end and works backward to its more proximate ends. The first half of the *Sophistical Refutations* is ordered in this regard. Therefore, Aristotle first treats of the how the chief aim of the sophist is achieved and then treats of the secondary ends. The second half of the treatise mirrors the structure of the first half from the perspective of the answerer.

Outline of the Sophistical Refutations[135]

I. Proemium or Prologue: Chapters One & Two
   A. The nature and existence of the subject matter C. 1
   B. Distinction of four kinds of argument in dialogue C. 2
II. The aims of the sophist and how they are achieved: CS. 3-15
   A. The chief and secondary aims of the sophist C.3
   B. How the chief aim is achieved CS. 4-11
      1. The distinction of ways into two C. 4 165b 23-24
      2. The ways or places from speech C. 4 16524-166b21
      3. The ways or places from things C. 4 166b21-C. 5
      4. The reduction of all ways to ignorance of refutation C. 6
      5. How men are tricked by sophistical refutation C. 7
      6. Sufficiency of the above places and their distinction from other kinds of refutation CS. 8-9
      7. Concerning a mistake in dividing refutations C. 10
      8. The differences between dialectical and testing, sophistical and eristic, demonstrative and false-diagrammatic, arguments C. 11
   C. How the secondary aims are achieved CS. 12-14
   D. Rules to help achieved the aims in conversation C. 15
III. Untying sophistical arguments: CS. 16-33
   A. Usefulness of untying C.16
   B. Apparent untying C.17
   C. True untying
      1. Of the sophist's arguments for the chief aim CS. 18-30
         a. True untying of sophistical arguments in general C. 18
         b. Untying arguments from words CS. 19-23
            i. Untying arguments from equivocation and amphiboly C. 19
            ii. Untying arguments from composition and division C. 20
            iii. Untying arguments from accent C. 21
            iv. Untying arguments from figure of diction C. 22
            v. Untying of arguments from words in general C. 23
         c. Untying of arguments from things C. 24
            i. Untying arguments from the accident C. 24
            ii. Untying arguments from simply and in some respect C. 25
            iii. Untying arguments from ignorance of refutation C. 26
            iv. Untying arguments from taking the conclusion in the beginning C. 27

[135] For this outline and for innumerable other insights into the text, I owe a debt of gratitude to Dr. Duane H. Berquist.

v. Untying arguments from consequence C. 28
vi. Untying arguments from non-cause as cause C. 29
vii. Untying arguments from making many questions one C. 30

2. Of the sophist's attempt to achieve secondary aims CS. 31-32

D. Difficult and easy untying C. 33

IV. Epilogue C. 34

Translation

Chapter 1: Nature and Existence of Sophistical Refutations

164a20 Beginning from first things according to nature, let us speak about sophistical refutations, that is, what appear to be refutations, but are fallacies and not refutations.

Now, it is manifest that there are syllogisms and there are other [arguments] which appear to be [syllogisms], but are not. For just as this 25 [misleading appearance] takes place in other things through some likeness, so too it happens in arguments in the same way. For even with condition: some people are vigorous, but others appear to be [vigorous] by puffing up and 164b20 preparing themselves like tribesmen; and some people are beautiful through beauty, but others appear to be [beautiful] by embellishing themselves. It is likewise with inanimate things: for some of these are truly silver or gold while others are not [silver or gold], but they appear to be by sensation. For example, things made of litharge and tin [appear to be] silver, and yellow 25 colored things [appear to be] gold. In the same way, one [argument] is both a syllogism and a refutation while another [argument] only appears to be because of inexperience. For inexperienced people perceive as if they were looking from far away.

165b1 For a syllogism is [an argument] from [premises] which are laid down, such that one asserts something else, by necessity, other than the [premises] laid down but because of the [premises] laid down. A refutation is a syllogism with a contradiction of the conclusion.

Some [arguments] do not [refute], but they seem to through a number 5 of causes, one of which is most naturally suited and frequently used, namely the place through names. For, just like those who count with counting stones, we believe that what happens to names, happens to things. For we cannot put forward things themselves in discussion, and so we use names as symbols 10 instead of the things. Nevertheless, it is not the same, because names and the number of speeches are limited, while things are unlimited in number. One and the same speech or name must signify more [than one thing]. In fact, just like in counting where people who are unskillful at directing counting stones 15 are misled by those who are skilled, so too people who are inexperienced with the power of names are misled in arguments similarly, both when they argue dialectically themselves and when they hear others. Accordingly,

through this cause—and those which we will discuss later—[some arguments] appear to be both syllogisms and refutations, but are not.

Since seeming to be wise is more profitable for some people than being [wise] without appearing to be [wise] (for the sophistical art is apparent, but not real wisdom; and a sophist is a profiteer from apparent, but not real, wisdom), clearly [sophists] must appear to practice the wise man's proper activity rather than practice [this activity] without seeming to do so. To explain how one relates to the other: it is the proper activity of the one who knows about something not to speak falsely about what he knows, and to be able to manifest when something is said falsely; concerning these, the first is being able to give an argument, the other is [being able] to receive one. Accordingly, those who wish to be sophists must inquire into the genus of arguments that have been mentioned. For it is profitable because such a ability will make them appear wise, which they accomplish when they have this intention. Evidently, therefore, there is a genus of arguments of this kind, and those whom we call sophists aim at such an ability.

Let us now discuss how many species of sophistical arguments there are, the number of [parts] from which the ability is composed, how many parts of the discipline (πραγμᾰτείᾰ) there are, and about other things which contribute to this art.

Chapter 2: Distinction of Arguments in Dialogue

Clearly, there are four kinds of arguments in dialogue: didactic,
165b1 dialectical, testing, and contentious. Didactic [arguments] syllogize from each discipline's proper principles and not from the answerer's opinions. (For a student must have trust.) Dialectical [arguments] syllogize from endoxes to a
5 contradiction. Testing [arguments] syllogize from opinions held by the answerer and from premises that anyone pretending to have knowledge (ἐπιστήμη) must know (in the way that was layed down in other [works]). Contentious arguments syllogize from apparent but not real endoxes, or they appear to syllogize.

What concerns demonstrations has been treated in the *Analytics*, while
10 what concerns dialectical [arguments] and testing [arguments] has been treated in others. Let us now speak about competitive and contentious [arguments].

Chapter 3: The Aims of the Sophist

We must first grasp how many things competitors and victory-lovers aim at in arguments. There are five of these [aims]: refutation, falsehood, paradox, solecism, and fifth, causing the interlocutor to babble, (that is, to force him to say the same thing many times), or [to force him to state] what merely appears to be each of these [aims]. For [sophists] prefer to appear to be refuting most of all, second to expose when something is said falsely, third to lead [the answerer] into a paradox, fourth to make him say a solecism (i.e., to make the answerer commit a barbarism in his speech on account of an argument), and lastly to make him say the same thing several times.

Chapter 4: Apparent Refutations from Speech

There are two ways of refutation: some are from speech, and others are outside of speech. There are six ways of producing an appearance [of refutation] from speech: equivocation, amphiboly, composition, division, accent, and the figure of diction. Confidence in this [list] comes from induction, or syllogism (if we should take up another way), especially because we can fail to signify the same thing with the same names and speeches in so many ways.

The following arguments are from equivocation. For example, *Those who have knowledge learn because literate people understand dictated lessons*. Here "to learn" is equivocal; it [means] both understanding while using knowledge and acquiring knowledge. Again, *Evils are good because what needs to be is good, but evil things need to be*. For "what needs to be" is twofold: [it means] "the necessary" which often occurs even in the case of evils, (since evil is something necessary); and we also say good things are "what needs to be." Further: *To sit and to stand are the same, and to be sick and to be healthy, because he who was standing up has stood up, and he who was recovering is healthy, but the man who has been seated was standing up, and the man who is sick was recovering*. For, "the sick man doing or suffering anything whatsoever" does not signify one thing, but sometimes [it signifies] he who is now sick (or sitting), and at other times he who was sick before. Albeit the man who is sick was recovering even while he was sick, but he is not healthy while he is sick, rather he is the man who was sick before, but not now.

The following [arguments] are from amphiboly: *Wishing me the enemies to capture*, and *Is there knowledge of what one knows?* For by speaking this way a person can signify the one who knows as knowing and the one who is known [as knowing]. Also, *Is there sight of what one sees? But he sees the pillar, so the pillar sees.* Again, *Is it the case that what you claim to be, this you claim to be? But you claim the stone to be, so you claim to be a stone*. Moreover, *Is it the case that speaking of the silent is possible?* For even "speaking of the silent" is twofold: [it means] either that the speaker is silent or that the ones who are spoken of are silent.

There are three ways of [apparent refutation] from equivocation and amphiboly. The first way occurs whenever the speech or the name properly signify more than one thing as ἀετὸς and κύων. The second way occurs whenever we have been accustomed to speak in this way. The third way occurs whenever something signifies more than one thing when it is composed, but [signifies] only one thing when it is divided, as *knowing letters*. For if they happen [to be separated], both "knowing" and "letters" signify

one thing, but together, [they signify] more than one thing: either that the letters themselves have knowledge or another [person has knowledge] of the letters. Hence, amphiboly and equivocation occur in these ways.

The following arguments are from composition. For example, *being able to walk while sitting,* and *[being able] to write while not writing*. For, if someone says that "walking while sitting" is possible, he does not signify the same thing when he divides [the phrase] as he does when he composes it. And it is likewise in the following phrase, if someone composes "writing while not writing;" for [the phrase] signifies that one has the ability of writing while not writing; whereas if one does not compose it, [he signifies] that he has the ability of writing, when he does not write. Again, *He learns letters now if in fact he learns what he has knowledge of.* Again, *being able to carry many things while one is able to carry only one thing.*

The following arguments are from division: *Five is two and three, both odd and even, and the greater is equal, because it is so much and still more.* For the same speech may not always appear to signify the same thing when divided and when composed, as for instance, *I established you a slave while being free* and *God-like Achilles left a hundred fifty men.*

166b1 In dialectic, it is not easy to make an argument from accent without writing, but it is easier in written works and poetry. For example, some people even revise Homer against the criticism that the expression *The invalid ought to be put aside* is strange. For they untie this by an accent, by pronouncing the first syllable more sharply. Again, concerning Agamemnon's vision in sleep, they say that Zeus himself did not say *We grant him to attain what he prays for* but that he commanded the vision in sleep to grant it. Thus, such examples are from accent.

Arguments from the figure of diction occur whenever what is not the same is expressed in the same way. For instance, it occurs when the masculine [is expressed] by the feminine or the feminine by the masculine, or the neuter by either of these; or again, quality by quantity or quantity by quality; or acting upon by undergoing or the intransitive by the acting upon, and so on as has been previously distinguished. For with speech a person can signify what is not [in the category] of acting upon as something [in the category] of acting upon. For example, "being healthy" is said by figure of diction in a similar manner to "cutting" and to "building." Yet it is clear somehow that the one is a certain quality and intransitive, and the other is a certain acting upon. It also happens the same way in other instances.

Thus, refutations from speech are from these places. There are seven species of fallacies outside of speech: first, that from accident; second, that from being said simply or not simply but in some respect, or in some place,

or at some time, or in relation to something; third, that from ignorance of refutation; fourth, that from the consequent; fifth, that from assuming the original [question]; sixth, that from laying down what is not a cause as a cause; seventh, that from making many questions one.

Chapter 5: Apparent Refutations Outside of Speech

Now, fallacies from accident occur whenever anything is thought to
30 belong to a thing (πρᾶγμα) and to its accident in a like manner. For it is not necessary that the same things belong to all the predicates and to the subject of which they are predicated. For many things happen accidentally to the same thing. For instance, *If Coriscus is different from man, then he is different from himself because he is a man.* Moreover, *If he is different from Socrates and*
35 *Socrates is a man,* they say that he has conceded *he is different from man* because of the accident that [Socrates]—whom the [respondent] said that [Coriscus] is different from—is a man.

Fallacies from being said simply or in some respect and not properly occur whenever what is said in part (ἐν μέρει) is taken as if it had been said
167a1 simply. For instance, *If non-being is a matter of opinion, then non-being is.* For to be something and to be simply are not the same. Or again, [it is said] that *Being is not being, if it is not a certain kind of the being, for instance, if it is not man*. For "not being something" and "not being simply" are not the same. Yet "being something" appears to be little different from "being" through
5 resemblance in speech and "not being something" from "not being." And it is likewise with the argument from what is in some respect and what is simply. For instance, *If the Indian is white in respect to his teeth while he is black all over, then he is white and he is not white*. Or, [it is said] that *If both are in some respect, then contraries belong together*.

10 In some cases, it would be easy for anybody to recognize this sort [of fallacy]. For example, if the questioner should ask whether [the Ethiopian] is white in respect to his teeth after securing that the Ethiopian is black [with respect to his skin]; if, in fact, the Ethiopian is white in respect [to his teeth], then [the answerer]—concluding the interrogation syllogistically—might think that it has been argued that [the Ethiopian] is both black and not black.

In some cases, [the fallacy] often escapes detection, namely in all cases
15 where, whenever something is said in some respect, what is simply might also seem to follow, and in all cases where it is not easy to perceive which of these is properly assigned. Such a situation occurs in cases where opposites belong in a like manner. For it seems that one must concede that either both or neither are simply. For example, *If something is half white and half black, is it*
20 *white or black?*

Those [fallacies] from not having defined what syllogism or what refutation is come about through a deficient account (λόγος). For refutation is [a syllogism of] the contradiction of one and the same [thing], not of the name but of the thing [held by the answerer], and not of the synonymous

name, but of the same name, [in which the conclusion follows] by necessity from the [premises] that are granted (and does not assume the original [question]), [and the contradiction is] according to the same thing, in relation to the same thing, in the same manner, at the same time. (Also, [I define] any false assertion in the same way.) Some people merely appear to refute by leaving out one of the stated [parts of the definition]. For instance, [they say] that *The same thing is double and not double because two is double of one, but it is not double of three.* Or [they say that *The same thing is double and not double*], *if the same thing is double and not double of the same thing, but not according to the same*. For it is double in length, but it is not double in width; Or [they say that *The same thing is double and not double*], *if* [*the same thing is double and not double*] *of the same thing and according to the same and in the same manner, but not at the same time*; hence there is an apparent refutation. Someone might even drag this [refutation] into the refutations from speech.

[Fallacies] from assuming the original [question] occur in the same way and from all the ways a person can beg the original [question]. They appear to refute through [the interlocutor's] inability to distinguish the same from the different.

167b1 The refutation from the consequent occurs through assuming that an implication converts. For whenever [B] follows by necessity from [A] being so, they also expect that [A] follows by necessity and from [B] being so.

This is the source of mistaken opinions based on sense sensation also. For people often take the bile for honey because the yellow color follows upon honey. Again since it happens that the earth is soaked after it rains, we assume it rained if the earth is soaked, but this is not necessary.

Again, in rhetorical [arguments], demonstrations by sign are from consequents. For when rhetoricians wish to show that someone is an adulterer, they take the consequent that he is a dandy or that he is seen wandering by night. Still, these [attributes] belong to many people, but the accusation [of adultery] does not.

It happens likewise even in syllogistic arguments, as Melissus' argument that the universe is unlimited. He thought that *The universe is unoriginated (for nothing can come to be from non-being) and what becomes comes to be from a beginning. Therefore, If the universe has not come to be, it does not have a beginning; hence, it is unlimited.* This, however, does not follow necessarily. For it does not follow that if everything which comes to be has a beginning, then if something has a beginning, it also has come to be, just as if a man who is feverish is hot, a hot man is not necessarily feverish.

The [refutation] from what is not a cause as a cause occurs whenever what is not a cause is taken in addition as though a refutation depends upon

it. This kind [of argument] happens in syllogisms to the impossible. For in these [syllogisms] one must do away with one of the premises laid down. Now if [a statement] is counted among the questions necessary for the resulting impossibility, the refutation will often seem to depend on it. For example, *The soul and life are not the same because if coming to be is contrary to ceasing to be, then also some kind of coming to be is contrary to some kind of ceasing to be. Death is some kind of ceasing to be and is contrary to life; accordingly, life is a coming-to-be and to live is to become. But this is impossible, hence the soul and life are not the same*. Surely the [argument] does not syllogize. For the impossibility follows even if the answerer does not say that life is the same as the soul, but says only that life is contrary to death—which is a ceasing-to-be—and that coming-to-be is [contrary to] ceasing-to-be. Arguments of this kind are not unsyllogistic simply, but unsyllogistic relative to the question under discussion. And often this kind [of argument] escapes the detection of the questioners themselves just as much [as it does of the answerers]. Hence, arguments of this kind are from the consequent and what is not a cause.

Arguments from making two questions one occur whenever [the answerer] does not notice that there are a number [of questions], and he gives one answer as if there is only one [question]. Now in some cases, it is easy to see that there are many [questions] and that the [respondent] must not give an answer. For example, *Is the earth the sea or the sky?* In some cases, however, it is not as [clear], and either [the answerers] concede as if there is only one question by not answering, or they appear to be refuted. For example, *Is he (A) and he (B) a man? Therefore, if someone strikes him (A) and him (B), then will he not strike men but a man.* Or again, concerning things of which some are good and others are bad, *Are all of them good or not good?* For whichever of the two [answers] he says, he may seem to produce an apparent refutation or a false statement. For it is false to say that something is good which is not good or that something is not good which is good. Sometimes, securing additional premises may give rise to a true refutation. For instance, if someone grants that "white" and "naked" and "blind" are said similarly of one and many things. For *If the blind is that which does not have sight but is naturally disposed to have it, then blind things will also be things which do not have sight but are naturally disposed to have it. Hence, whenever one thing has [sight] but another does not have [sight], they both will either be seeing or blind, which is impossible*.

Chapter 6: Reduction of Apparent Refutations to Ignorance of Refutation

Assuredly, one must either divide apparent syllogisms and refutations as above or one must refer all to ignorance of refutation—making this the beginning: for it is possible to reduce all the previously stated ways into the definition of refutation. First, [one can reduce them] if they are unsyllogistic. For the conclusion must follow from the premises laid down such that one asserts it by necessity, and does not merely appear to. Then [one can reduce them] according to the parts of the definition also. For concerning the [fallacies] inside speech, some are from what is twofold: namely, equivocation and speech and the common-form (for it is customary to signify everything as a 'this something'), while composition and division and accent occur because the speech is not the same or the name is different. Even this [i.e., the speech or name] must be the same—just as the thing (πρᾶγμα) must also be the same—if there is to be a refutation or syllogism. For example, if the [name is] robe, one must not syllogize about "cloak," but about "robe." For the former [conclusion] would also be true, but it has not been syllogized. Instead, in response to the one seeking to know the "reason why," one must ask the further question: whether it signifies the same thing.

[Fallacies] from accident are exposed when syllogism has been defined. For there must also be the same definition of refutation except that contradiction is added. For a refutation is a syllogism of contradiction. Consequently, if there is no syllogism of the accident, there is no refutation. For if (C) must be when these (A) and (B) are, and (C) is white, then it is not necessary that it is white because of the syllogism. Moreover, if a triangle has angles equal to two right angles, but it happens accidentally to be a figure or an element or a principle, it is not necessary that a figure or an element or a principle [have angles equal to two right angles]. For the demonstration is not as figure or as principle but as triangle, and it is likewise even in other cases. If, therefore, a refutation is a syllogism, then there cannot be a refutation according to accident. Still, because of this [fallacy], both the artisans and in general people who know scientifically are refuted by people who do not. For [those who do not know scientifically] make syllogisms according to the accident against those who do. For those who are unable to distinguish either concede when they are questioned or suppose that they have conceded when they have not conceded.

[Fallacies] from [being said] simply and in some respect [reduce to ignorance of refutation] because the affirmation and denial are not of the same thing. For the denial of "white in some respect" is "not white in some respect" and of "white simply," "not white simply." Accordingly, if [the

questioner] assumes that something is said to be white simply when [the answerer] grants it merely in some respect, then he does not cause a refutation. He appears to, however, because of ignorance of what a refutation is.

The clearest of all are [arguments] previously called [fallacies] from the definition of refutation. (This is why they have the name that they do.) For the appearance is the result of a deficient account [of refutation], and if they are distinguished in this way, we must establish that a deficient account is common to them all.

Both [fallacies] from assuming the original [question] and [fallacies] from laying down what is not a cause as a cause are clear through the definition. For the conclusion must follow "by these [premises] being so," although this does not happen when the [premises] are not causes. And again, "not assuming the original [question]" [is part of the definition], but [fallacies] from begging the original [question] do just that.

[Fallacies] from the consequent are part of the [fallacy] of the accident. For the consequent is an accident, but it is different from an accident because it is possible to take the accident in one [thing] alone. For example, the yellow and honey are the same, and the white and swan. On the other hand, the [fallacy] from the consequent is always in several things. For we think things that are the same by one and the same thing are also the same as one another. The refutation from the consequent comes to be on account of this. Yet it is not always true, as for instance, if it is [white] according to accident because both snow and a swan are the same by whiteness.

Or again, as in Mellisus' argument, he assumes that "having come to be" and "having a beginning" are the same, or "becoming equal" and "to take the same magnitude" [are the same.] For he thinks that what has a beginning has come to be, since what has come to be also has a beginning as if both things—i.e., what has come to be and what is limited—are the same by having a beginning. And likewise, in things which become equal, if what takes one and the same magnitude becomes equal, then also what becomes equal takes one magnitude. Hence, he assumes the consequent. Accordingly, since the refutation from accident is in ignorance of refutation, it is apparent that the [argument] from the consequent is too. Yet we must also consider this in another way.

[Fallacies] from making many questions one depend on our not articulating the account of a premise. For a premise is one [term] said of one [term]. For the same definition applies to one thing alone and to the thing (πρᾶγμα) simply, as to man and to one man alone, and it is likewise in other cases. So, if one premise asserts one [term] of one [term], then this kind of

question will also be a premise simply. Since the syllogism is from premises and a refutation is a syllogism, then the refutation will also be from premises. Consequently, if the premise asserts one [term] of one [term,] clearly [the fallacy of making many questions one] is also in ignorance of refutation. For [in the fallacy] what is not a premise appears to be a premise. If, therefore, [the answerer] has given the answer as if to one question, there will be a refutation. On the other hand, if he has not given [an answer], but appears to, then there will be an apparent refutation.

Hence all places fall into ignorance of refutation: [fallacies] from speech because the contradiction is apparent—which was proper to refutation—and the other [fallacies] because of the definition of syllogism.

Chapter 7: How People are Tricked by Fallacies

The trick of [fallacies] from equivocation and speech occurs through being unable to distinguish what is said in many ways. For some [names and
25 phrases] are not easy to distinguish, as "one," and "being," and "the same."

[The trick of fallacies] from composition and division occurs through thinking that it makes no difference whether a phrase (λόγος) is composed or divided, just as [it makes no difference] in most cases.

In a like manner, [the trick occurs] in [fallacies] from accent because lowering and raising a phrase's pitch does not seem to alter its meaning—either in all or many cases.

30 [The trick of arguments] from figure [of diction] is through a likeness of speech. For it is difficult to distinguish what sort of things are said in the same way and what sort are said in a different way (for anyone able to do this is close to seeing the truth and knows best when to assent) because we assume everything that is predicated of something is a 'this something,' and
35 we hear it as one thing. For 'this something' and 'being' especially seem to follow upon what is one and substance. Whence one must count this way among those from speech, first because the trick occurs more when inquiring with others than by ourselves. (For inquiry with another person happens through speech, while inquiry by oneself happens no less through the thing itself). Second, one is liable to be tricked even by himself whenever he makes
169b1 the inquiry with speech. Besides, a trick is from a likeness, and the likeness is from speech.

[The trick of fallacies] from accident occurs through not being able to distinguish what is the same and what is different, and what is one and what
5 is many, nor in what kinds of predicate all the same things happen accidentally to them and to their subject (πρᾶγμα).

It occurs likewise in those [fallacies] from the consequent. For the consequent is a part of the accident. Furthermore, in many cases the following [opinion] seems so and is thought to be so: if (A) cannot be separated from (B), then (B) cannot be separated from (A).

10 The trick of those [fallacies] from a deficient account [of refutation] and of those fallacies from what is in a certain respect and what is simply depends on a small difference. For we assent universally, acting as if a limitation to an individual or a qualification in respect or manner or time added nothing new.

[The trick occurs] likewise in [fallacies] that assume the original [question] and [in the fallacies from] the non-cause and in those that make
15 many questions one. For in all these, the trick depends on a small difference.

For we fail to consider with precision both the definition of a premise and a syllogism for the aforementioned reason.

Chapter 8: That the List of Sophistical Refutations is Complete; How a Sophistical Refutation is a Refutation

Since we grasp the number of [causes] from which apparent syllogisms come about, we also grasp the number of ways sophistical
20 syllogisms and refutations might occur. I not only call a sophistical refutation and syllogism what merely appears to be a syllogism or refutation but also what is [a refutation or syllogism] while appearing proper to the thing (πρᾶγμα). These are the [fallacies] that fail to refute according to the thing and [fail to] expose those who are ignorant, which is [the work] of the testing
25 art. The testing art is part of dialectic. It can syllogize to what is false through the ignorance of the one who grants the argument. Yet sophistical refutations—even if they syllogize to a contradiction—do not show whether [the answerer] is ignorant; for [sophists] tie up even someone who knows using these arguments.

30 Clearly, we grasp them by the same method. For whatever [causes] make the audience think that [a contradiction] is syllogized by way of questions, may make the answerer think so too. Hence, syllogisms will be false through these [causes], either through all or some. For what he thinks he would have granted when he wasn't questioned, he would also grant if he
35 was. (Except, in some cases, placing an additional question for what is lacking and exposing what is false occurs at the same time, e.g., in [fallacies] from speech or solecism). Accordingly, if fallacies of contradiction are due to apparent refutations, clearly syllogisms with false conclusions would also depend on the same number of sources an apparent refutation does.

Now, apparent [refutation] results from the parts of true [refutation]
170a1 because an apparent refutation results from excluding each [part]. For instance, a [reduction] into the impossible is due to not following on account of the argument, and the [fallacy] of making two questions one is due to a [defect in the definition of] premise, and the [fallacy of the accident] is from [using] what is accidental instead of what is through itself, so too with this
5 [fallacy's] branch: the [fallacy] of assuming the consequent. Moreover, [in fallacies from speech, the conclusion] does not follow in respect to the thing but in respect to the speech. Next (instead of syllogizing a contradiction of the universal and according to the same and in relation to the same thing and in the same way) a fallacy may be from [syllogizing] what is in a certain respect or from one or another of these qualifications. Again, the fallacy of assuming the original [question] is due to "not reckoning in the original
10 [question]." Thus, we likely grasp the number of [causes] from which

fallacies occur. For they should not be from more, but they will all be from those aforementioned.

A sophistical refutation is not a refutation simply, but in relation to someone and it is likewise for the syllogism. For unless the [fallacy] from equivocation assumes [the name] signifies one thing and the [fallacy] from common-form [assumes it signifies] this alone, and likewise for the others, there will be no refutation nor syllogism—neither simply nor in relation to the answerer. Yet if they assume this, there will be [a refutation] in relation to the answerer, but there will not be [a refutation] simply. For they have not secured [an answer] that signifies one thing—but it appears to—and from a particular person.

Chapter 9: In What Respect the List of Sophistical Refutations is Complete

Without knowledge (ἐπιστήμη) of everything that is, one should not try to grasp all the [sources] through which people are refuted. No one art can do this. For perhaps sciences are infinite and so clearly demonstrations are too. These [demonstrations] are also true refutations. For whenever it is possible to demonstrate, it is also possible to refute someone who contradicts the truth. For example, if someone laid down that the [side of a square] is commensurate with the diagonal, one would refute him by demonstrating that it is incommensurate. Hence, there will need to be people who have knowledge (ἐπιστήμη) of all things. For some [refutations] will be from principles of geometry and conclusions that follow from these, others will be from principles of medicine, and others from those of other sciences.

Moreover, false refutations will likewise be among things which are infinite. For there is a false syllogism according to each art. For example, the geometrical is according to geometry, and the medical according to medicine. I call 'according to an art,' what is according to its principles. Plainly, therefore, one must not grasp the places of all refutations, but those from dialectic. For [dialectical places] are common to every art and ability. And it is the [work] of the one who has knowledge (ἐπιστήμη) to consider refutation according to each science, both if it merely appears to be, and if it is, on account of what it is; but it is [the work] of dialecticians [to consider refutation] from common things and under no one art. For if we grasp [the places] from which there are endoxic syllogisms about anything whatsoever, we grasp [the places] from which there are refutations. For refutation is a syllogism of contradiction, so that a refutation is either one or two syllogisms of contradiction.

We grasp, then, the number of [sources] due to which all such [refutations] come to be. If we grasp this, then, we also grasp their untyings. For the objections to these [refutations] are their untyings. We also grasp by how many [sources] apparent [refutations] come to be—not apparent to anyone whatsoever but to a certain kind of people. For if someone examines from how many [sources] there seems to be [a refutation] to any chance person, the number is unlimited. Clearly, therefore, the ability to grasp from how many [sources] either a real refutation or an apparent refutation—either dialectical, or apparently dialectical, or testing—come to be through common [principles] is [part] of dialectic.

Chapter 10: A False Division of Arguments

There is no distinction that some people say there is between arguments 'towards the name' and others 'towards the thought.' For it is strange to assume that some arguments are towards the name and others are towards the thought, but not the same arguments. For what is 'not towards the thought' except when [a questioner] uses a name for something different from what the answerer thought he was being asked about when [the answerer] granted [the question]? Yet 'towards the name' is the same thing. [An argument] is 'towards the thought' when [a questioner uses a name] for what [the answerer] had in mind when he granted [the question].

Now if they (i.e., both the questioner and the answerer) were to think that a name signifies one thing when it signifies many things—for instance, "being" and "one" signify equally many things, and the argument is that everything is one, but the answerer [responds] and the questioner inquires assuming that [the names] have one meaning—will the argument be directed towards the name or towards the answerer's thought? Yet if someone thinks that [a name] signifies many things, clearly it is not towards the thought. For 'towards the name' and 'towards the thought' primarily concern arguments which signify many things, but then they concern any argument whatsoever. For being directed towards the thought does not depend on the argument, but on how the answerer relates to the granted [premises]. Accordingly, they can all be directed towards the name because in this circumstance being towards the name is not being towards the thought. For if not all [arguments can be directed towards the name], some will be neither towards the thought nor towards the name. Nevertheless, they say all are [towards one or the other], and all are divided into being either towards the name or towards the thought and not into others.

Moreover, only some syllogisms that depend on what is said ambiguously are from the name. For it has been strangely stated that 'from the name' describes all [fallacies] from speech. But some [arguments] are fallacies, not by how the answerer relates to [the granted premises], but by the argument itself having the sort of question which signifies many things.

171a1 Speaking generally, to discuss refutation without first discussing syllogism is out of place (ἄτοπος). For a refutation is a syllogism, so one must [discuss] syllogism before false refutation. For such a refutation is an apparent syllogism of contradiction. Therefore, the cause will either be in the syllogism or in the contradiction (for the contradiction must be attached)—sometimes in both if it is an apparent refutation. The [argument] about "speaking of the silent" has [its cause] in the contradiction, not in the

syllogism, but [the argument that] "someone can give what he does not have" has [its cause] in both. [The argument that] "Homer's poetry is a figure on account of the circle" has [the cause] in the syllogism. That [which has the cause] in neither is a true syllogism.

But returning to the place where the argument left off: are arguments in mathematics directed towards the thought or not? And if an answerer believes that "triangle" signifies many things and granted [a question regarding triangle] not referring to a figure concluded to have [angles equal to] two right angles, then has [the questioner] argued towards his thought, or not?

Besides, if a name signifies many things, but an answerer does not know or think that it does, how has [the questioner] not argued towards his thought? Or how else should one question except by making a distinction? Suppose a person was to ask if speaking of the silent is possible or not, or if it is "yes" in a way and "no" in another way, then if the answerer was to grant it in no way, and yet it could be concluded dialectically, then has not [the questioner] argued towards his thought? Yet the argument seems to belong to those from the name.

Hence, there is not a certain kind of argument directed towards the thought. But some [arguments] are towards the name, and yet these [arguments] do not exhaust all refutations nor all apparent refutations. For there are also apparent refutations that are not from speech, as for instance, those from accident and others.

If someone claims to distinguish, claiming that "By 'speaking of the silent,' sometimes I mean one thing, and other times another thing," then this claim is, in the first place, at least strange. For sometimes the question does not seem to have many meanings, and it is impossible to make a distinction when one does not believe there is one. In the second place, what else will didactic teaching be? For [teaching] will make clear that it has [more than one meaning] to a person who has neither considered, nor knows, nor supposes that it is said otherwise. For what prevents this from happening with [phrases] that are not twofold also? *Are the units in fours equal to twos? Some twos are present in one way but others in another way*. Again, *Is knowledge* (ἐπιστήμη) *of contraries one or not? Some contraries are known but others are unknown*. Thus, the person making this claim does not seem to know that teaching is different from dialectic and that the teacher must not question but he must himself make things clear, and the [dialectician] questions.

Chapter 11: The Distinction and Relation of Different Arts of Argument

Still, requiring someone to affirm or deny is not characteristic of a demonstrator, but of a person who exacts tests. For the testing art is a certain aspect of dialectic, and it does not consider the knower but the ignorant man who pretends to know. Now a dialectician considers common things according to a subject, but a sophist appears to do this. Now one [kind of] apparent syllogism is the contentious and sophistical syllogism concerning things on which dialectic employs the testing art—even if its conclusion is true. (For it tricks us in regard to the reason why.) Again, some fallacies seem to be according to an art although they are not according to the particular [art's] method. For false-diagrammatics are not contentious (for [such] fallacies are according to what falls under the art), not even if there is some false-diagrammatic about the truth, as that of Hippocrates or the squaring of the circle by means of lunules. But how Bryson squared the circle—even if the circle is squared—is still sophistical because it is not according to the subject. Therefore, an apparent syllogism about these things is a contentious argument, and a syllogism which appears to be according to the subject—even if it is a syllogism—is a contentious argument because it appears to be according to the subject so it is tricky and unjust.

For just as injustice in the athletic contest has a certain look and is a kind of dirty-fighting, so too the contentious art is dirty-fighting in a dispute. For, in the former case, those who play for victory at all costs snatch at everything, and in the latter case, the contentious disputers do the same. Therefore, those so inclined for the sake of victory itself seem to be contentious men and strife-lovers, but those so inclined for the sake of their reputation in order to make money seem to be sophistical. For the sophistic art is—just as we said—an art of money-making due to appearing wise; for this reason, they aim at apparent demonstration. Again, strife-lovers and sophists are occupied with the same arguments, but not for the same purposes. The same argument will be both sophistical and contentious but not for the same reason. If the purpose is apparent victory, the [argument] is contentious, if the purpose is apparent wisdom, it is sophistic. For the sophistic art is an apparent, but not real, wisdom.

In a way, the contentious argument relates to the dialectical one as the false-diagrammer is to the geometrician. For it argues fallaciously from the same [premises] as dialectic, and the false-diagrammer from the same [premises] as the geometer. Yet the [false-diagrammer] is not contentious because he makes false diagrams from the principles and conclusions under his art. However, clearly the [argument] falling under dialectic will be

contentious applied to other [disciplines]. For example, the squaring of the circle by means of lunules is not contentious, but that of Bryson is. The former cannot carry over to anything other than geometry alone because it is from [geometry's] proper principles but the latter [carries over] against many interlocutors—those who do not know what is possible and impossible in each case; for [the argument] will adapt. Or as Antiphon squared the circle. Or if someone should deny that it is better to walk after supper on account of Zeno's argument, it is not medical. For [the argument] is common.

Now if the relation of the contentious [argument] to dialectical was in every way similar to that of the false-diagrammer to the geometer, then [the contentious argument] would not be contentious about those things. As a matter of fact, a dialectical [argument] does not concern some definite genus, nor is it able to demonstrate anything, nor is it of such a kind as the universal. For everything is not in a single genus, and even if it were, all beings would not fall under the same principles. Accordingly, no art which demonstrates the nature of anything is interrogative. For a person cannot grant either of the two parts [of the contradiction indifferently] because a syllogism does not come about from both. Still, the dialectical art is interrogative. If [dialectic] did demonstrate, it would not ask—if not about everything, then at least about the first things and proper principles. For supposing [the answerer] did not granted these, [dialectic] would no longer have anything from which to argue further against [the answerer's] objection.

Yet the same art is also a testing art. For the testing art is not an art like geometry, rather it is an art which someone could have even without having knowledge. For even a man who does not know a subject can expose an ignorant person with a test —if, that is, the latter concedes [questions]. [The questioner does this] not based on what he knows nor based on proper [principles] but based on the consequences which a person can know without knowing the [relevant] art (but which, if he does not know them, he must be ignorant of the art). Clearly therefore, the testing art is not scientific knowledge of anything definite. For this reason, it is also about everything. For all the arts use some common [principles] too. Accordingly, everyone, even common men, take part in dialectic and the testing art in a certain way. For, up to a certain point, everyone attempts to interrogate those who profess [knowledge]. For what they use in this interrogation are the common things. For people know them no less, even if they seem to say quite irrelevant things. Consequently, all men refute. For they unartfully participate in what dialectic is artfully about, and whoever examines by the syllogistic art is a dialectician.

Many of these things concern all [subjects], but they are not the sort of things that constitute a particular nature and genus (rather they are like negations), while other things are not of this kind, but are proper. Hence, a person can exact a test about everything from these things, and it is a definite
172b1 art, and it is not of the same kind as those which demonstrate. For this reason, the contentious person is not in all respects like the false-diagrammer. For the contentious person will not be fallacious from principles of some definite genus, but will deal with every genus.

Accordingly, these are the ways of sophistical refutations. It is easy to
5 see that it is characteristic of the dialectician to consider about them and to be able to make them. For the investigation (μέθοδος) of premises comprises this theory as a whole.

Chapter 12: Eliciting False Statements and Paradoxes

And we have spoken about apparent refutations. As for exposing that a person speaks falsely and leading an argument into a disreputable opinion (for this was the sophist's second aim), in the first place, this occurs especially from a manner of inquiring and through questioning. For questioning—without determining what is laid down—is a good trap for these [purposes]. For interlocutors are more likely to err when they speak without a plan, and they speak without a plan whenever they have nothing laid down before them. Both asking about many things—even if what is being argued against is determined—and requiring that [the answerer] say what he thinks, produce an easy means of leading him into a disreputable opinion or a falsehood. It also leads him towards what one has plenty of attacks against—whether he affirms or denies any of these questions, when he is questioned. Yet, nowadays people are less able to work evil by these means than before. For [answerers] inquire, "what has this to do with what was asked in the beginning?" Again, an element for obtaining either something false or a disreputable opinion is not asking for a position frankly, but claiming to ask out of a desire to learn. For the pretense produces a location for attack.

Leading [the answerer] to the kind of positions that [the questioner] has plenty of arguments against is a sophistical place proper to exposing that something is said falsely. Yet, a person can do this both well or poorly just as was mentioned before.

Again, to elicit a paradox, consider the group to which your interlocutor belongs, and then ask about something that [the group] says which is paradoxical for many people. For there is a [position] of this sort in each [group]. An element in these matters is to hold the [paradoxical] positions of each [group] among your premises. And the proper untying of these [devices] is brought about by showing that the disreputable opinion does not follow on account of the argument. And a competitor always desires this also.

Moreover, argue from their wishes and public opinions. For people do not say and wish the same things. On the one hand, they make the most respectable claims. On the other hand, they wish for what appears profitable. They say, for example, that one ought to die nobly rather than to live for pleasure, and to toil justly rather than to be rich dishonorably, but they wish contrary things. We should lead a man who speaks according to his wishes into his public opinions, but he who speaks according to the latter into his hidden wishes. For in both cases, he must assert paradoxes. For they will say contrary things either to their public or to their hidden opinions.

The most common place used for making someone say paradoxes is due to what is according to nature and what is according to law—just as Callicles is represented as saying in the *Gorgias* and as all the ancients thought followed. For they supposed nature and law to be contraries, and justice to be good according to law but not good according to nature. Therefore, against someone who speaks according to nature one should reply according to law, and against someone [who speaks] according to law [one should] lead on to nature; for either way, it amounts to stating paradoxes. For them, what is according to nature was the truth, but what is according to law was the opinion of most people. Hence, clearly even they tried either to refute the answerer or to force him to state paradoxes, just as people also do nowadays.

With some questions, answering either way is disreputable, for instance, *Should a person obey the wise or his father?* and *Should one do what is expedient or what is just?* and *Which is worthier of choice, to do wrong or to suffer wrong?* We should lead [our opponents] into [opinions] contrary to the many and to the wise: if he speaks as those trained in argument, then [we should lead him] into [opinions contrary] to the many, but if he speaks as the many, then [we should lead him] toward [opinions contrary] to the wise. For some people say that the happy man is just by necessity, but for the many, that a king is unhappy is a disreputable opinion. Leading into disreputable opinions in this manner is the same as leading into the opposition of what is according to nature and according to law. For law is the opinion of the many, but the wise speak according to nature and according to the truth.

Chapter 13: Eliciting Babbling

We must, then, seek paradoxes from these places. Regarding [the aim of] making someone babble (we have already said what we mean by babbling), all the following kind of arguments are inclined to produce it. If it makes no difference whether a person says the name or gives the account, then "double" and "double of half" are the same. Hence *If it is double of half, then it will be double of half of half*. And if one again lays down double of half in place of double, then "of half" will be said three times: *double of half of half of half*. Also, *Is it the case that a desire is for pleasure? Yet, [desire] is an appetite for pleasure. Hence, desire is an appetite for pleasure for pleasure*.

173b1 All such arguments consist of (a) [terms] relative to something where these [terms], not only the genera but also the things themselves, are said relative to something, and assigned relative to one and the same thing (as for instance, appetite is appetite for something, and desire is desire for something, and double is double of something, i.e., double of half)—and consist of (b) any [terms] which, while they are not at all relative, the things whose habit or passion or something of this sort they are, their substance is included in their account as well, as predicated of these things. For example, *Odd is a number having a mean, and this is an odd number; therefore this is a number number having a mean*. Again, *If snub is a concavity of the nose, but this is a snub nose; therefore this is a concave nose nose*.

Sometimes [sophists] who do not make people [babble] appear to do so. For they do not ask whether "double" signifies something or not when it is said by itself, and if it does signify something, whether it signifies that same thing or something else. Nevertheless, they assert the conclusion right away. Still, it appears to signify the same thing because it is the same name.

Chapter 14: Eliciting Solecism

We have already said what sort of thing a solecism is. A person can make it; not make it, but seem to; or make it, but seem not to. If, as Protagoras used to say, "wrath" (ὁ μῆνις) and "helmet" (ὁ πήληξ) are masculine, then according to [Protagoras] a person who calls [wrath] "destructive" (οὐλομένην) commits a solecism, but he does not seem to do so to others. And, a person who calls [wrath] "destructive" (οὐλόμενον) appears to commit a solecism, but does not. Clearly, therefore, someone might also be able to bring this about through art; wherefore many of the arguments appear to syllogize a solecism when they do not syllogize a solecism, just like refutations.

Nearly all apparent solecisms are from this {τόδε}, namely whenever the inflection indicates neither masculine nor feminine, but neuter. "He" (οὗτος) signifies a masculine, but "she" (αὕτη) signifies a feminine; still "it" (τοῦτο) is inclined to signify something neuter, but "it" also often signifies either [masculine or feminine]. For instance, "what is it" (τοῦτο)? "It is Calliope," or "It is a log," or "It is Coriscus."

Now, the inflections of masculine and feminine are all different, and some of the neuter are different while some are not. Often, then, when "it" (τοῦτο) is granted, they syllogize as if "him" (τοῦτον) had been used. They argue in the same way swapping other inflections. The fallacy happens because "it" (τοῦτο) is common to many inflections; for "it" (τοῦτο) sometimes signifies "he" (οὗτος) and sometimes "him" (τοῦτον). It ought to signify alternately: "he" (οὗτος) ought to be combined with "is" (ἔστι), and "him" (τοῦτον) with "to be" (εἶναι), as for example, "It is Coriscus" (ἔστι Κορίσκος) and "[I think it] to be Coriscus" (εἶναι Κορίσκον). And it happens likewise with feminine names and with so-called "inanimate" names when they have a nominative form of a feminine or masculine [name]. For only
174a1 names which end in -ον have the nominative form of an inanimate [name], e.g., "log" (ξύλον,) and "chord" (σχοινίον). Other names that do not [end in -ον have a nominative form] of a feminine or masculine [name], some of which we apply to inanimate things. For instance, the name "skin" (ἀσκὸς) is masculine, but "couch" (κλίνη) is feminine. For this reason, there will be the same difference between "is" (ἔστι) and "to be" (εἶναι) in such cases.

In some way, a solecism is like refutations that are said to depend on 'expressing things that are not alike in a similar way.' For just as one finds himself committing a solecism on things in the latter, so too one ends up committing a solecism on names in the former. For man and white are both things and names.

Accordingly, it is apparent that one must try to syllogize a solecism from the aforesaid inflections.

These, therefore, are the species of competitive arguments and the parts of the species, and the ways are those mentioned. Still, it makes no small difference if the parts of the interrogation are marshalled somehow in order to escape detection, just as in dialectical [arguments]. One therefore must first discuss these things, after those that have been mentioned.

Chapter 15: Marshaling and Conducting Interrogation

Surely length is one [resource] useful for refuting. For it is difficult to see many things at once. To create length, one should use the elements mentioned before. Another [resource] is speed, because when people lag behind, they do not see as far ahead. Moreover, there is anger and love of victory because when people are agitated, they are not as able to stay watchful. The elements of [producing] anger are clearly wishing to engage in foul play and behaving altogether shamelessly. Another [resource] is alternating questions—both if someone has many arguments against the same thing, and if someone has arguments both for and against the same thing—because [the answer] ends up guarding against either several or contrary attacks all at once.

In general, all the [resources] for concealment that have been previously mentioned are also useful for competitive arguments. For the purpose of concealment is escaping detection, and the purpose of escaping detection, the trick.

When dealing with people who deny whatever they think is for [a questioner's] argument, one should ask his questions in the negative as if he wishes the contrary, or even as if he asks impartially. For [opponents] cause less trouble when it is not clear what [answer] one wishes to secure. And in dealing with particulars, whenever [an answerer] grants a particular case, one should often not ask him to induce the universal, but instead use [the universal] as if he granted it. For sometimes even the interlocutor himself thinks that he has granted it, and he gives the impression to the audience because they recall induction and assume the question would not have been asked in vain. In cases where there is no name to signify the universal, one should at least use a likeness towards his advantage because likeness often escapes detection. And in order to secure a premise, one should ask about it by contrasting with its contrary. For instance, if [a sophist] wants to secure that it is necessary to obey your father in all things, [he would ask], *Is it necessary to obey your parents in all things or to disobey them in all things?* and *Should it be conceded that many times many is many or few?* For if forced, [an answerer] would be more disposed to concede that it is many. For when contraries are placed side by side, they appear to people smaller and greater and worse and better.

Often, a strong appearance of refutation is produced by a questioner's most agitating and sophistical insinuation: he doesn't ask for the final proposition but instead states it conclusively, as though he has syllogized when he hasn't: "therefore this and that are not the case."

If a paradox has been laid down, it is also sophistical to require—when a reputable position is originally proposed—that the answerer say what seems to be, and to put the question about such things in this way: "Does it seem so to you?" For if the question is one of the premises of the syllogism, either a refutation or a paradox must result. There is a refutation when he concedes, but there is a disreputable opinion when he neither concedes nor states that it is reputable. When he does not concede but agrees that it is reputable, there is something looking like a refutation.

Furthermore, just as in rhetorical arguments, so too in refutations one must look in the same way for positions contrary either to what [an opponent] says or to the people whom he admits speak and do rightly, or to people that have such a reputation, or to similar people, or to the majority, or to all people.

Again, just as answerers while they are being refuted often equivocate if they are about to be refuted, so questioners must sometimes resort to this against objectors—if [a refutation] follows in one sense, but not another—[saying] that they have secured [an answer] in the former sense, as Cleophon does in the *Mandrobulus*. Also, if questioners are hindered from an argument, they must cut short what remains of the attack, and the answerer—if he anticipates this—must object and proclaim it publicly beforehand. Sometimes [a questioner] must also attack something other than the stated position, by excluding the latter, if he has no attack against the stated position—just as what Lycophron did when ordered to praise the lyre. Against those who demand [to know] what it is that one attacks, since it is held that a questioner should explain his accusation, (though when some things are said it is easier to keep guard), one should state what universally occurs in refutations, the contradiction. That is, one should say that [his aim is] to deny what the answerer affirmed or affirm what he denied, and not, [for example], that knowledge of contraries is or is not the same. And it is not necessary to ask for a conclusion in the form of a premise; a questioner should not ask for some things, but use them as if they are agreed upon.

Chapter 16: Why Studying Sophistic is Useful

175a1 We have now discussed the sources of questions, and how a person should ask [questions] in competitive disputations. Next, we should address answering—how one should untie [sophisms] and why and for what purpose such arguments are useful.

5 Now there are two [reasons] why they are useful for philosophy. First, because they make us attend to how many ways each [name] is said, and what sort of things happen similarly and what sort of things differently, both concerning the things and concerning the names. For most [fallacies] are from 10 speech. Second, [they are useful when] inquiring by oneself because a person who is easily committed to a fallacy by someone else and does not notice it often may also suffer this by himself.

Third and finally, [they are useful] for reputation: by seeming to have trained in everything and to be inexperienced with nothing. For objecting to 15 arguments—when someone participates in them and is not able to determine their faults—fosters suspicion, seeming as though he does not have qualms on account of the truth, but on account of inexperience.

It is obvious how answerers should reply to this kind of argument if 20 we have rightly specified the sources of fallacies and fittingly distinguished the advantages sought in interrogation. When a person takes on an argument, to see and untie its fault is not the same thing as to be able to meet it swiftly when questioned. For we often do not recognize what we know when it is put differently. Still, just as in other things more speed or 25 sluggishness are for the most part due to training, so also in arguments; accordingly, if the point is clear to us, but we are untrained, then we often miss the right moment. Sometimes it happens just as it does in geometrical diagrams. For there even after we analyze [a figure], we sometimes cannot construct it again; so too in refutations, although we know [the source] from 30 which the argument is strung together, we do not see how to break the argument apart.

Chapter 17: Apparent Untying of Fallacies

First then, just as we say a person should sometimes prefer to syllogize endoxically rather than truthfully, so too one should sometimes untie endoxically rather than according to the truth. For, in general, one should not fight against contentious people as if they refute but as if they seem [to refute]. For we deny that they really syllogize; accordingly, one should set them straight so that they do not seem [to refute]. For if a refutation is an unequivocal contradiction based on premises, then it might not be necessary to distinguish against amphibolies and equivocation (for they do not produce a syllogism) but one should distinguish for no reason except that the conclusion looks like a refutation. Hence, one should be aware not of being refuted, but of seeming to be. For asking ambiguous [questions], equivocal questions, and all tricks of that kind mask even a true refutation and make it unclear who is refuted and who is not. For [an answerer] is allowed to say in the end—when the conclusion is drawn—that he has not denied what he affirmed except equivocally, even if he referred as much as is possible to the same thing. Hence it is unclear if he has been refuted. For it is unclear if he is speaking the truth now. On the other hand, if [the questioner] had asked an equivocal or ambiguous [question] after he distinguished [the various meanings], the refutation would not be unclear. Further, what the contentious wish for—now less than they did before—would have occurred: namely, that the answerer reply "yes" or "no." Now, however, the answerer must add something [to his answer] in correction of the premise's defect because questioners do not ask well. Nevertheless, when he distinguishes sufficiently, the answerer must say either "yes" or "no."

If someone assumes that [an argument] according to equivocation is a refutation, the answerer cannot escape being refuted in some way. For in terms of what is visible, one must deny in respect to the name what he affirmed and affirm what he denied. For how some people correct [this argument] is not helpful at all. For they do not say that Coriscus is musical and unmusical, but that *this* Coriscus is musical and that *this* Coriscus is unmusical. For to say "*this* Coriscus is unmusical" (or musical) will be the same speech as "*this* Coriscus is [unmusical]"—the very [speech] which he both affirms and denies at the same time. But [the phrase] likewise does not signify the same thing because neither does the name [Coriscus] in this circumstance. So, what differs? It is strange, indeed, if he uses simply "Coriscus" in the one case, but adds "a certain" or "this" in the other. For [the addition] belongs no more to one than the other because it makes no difference.

Moreover, since it is not clear whether a person who does not distinguish the senses of an amphiboly is refuted or not refuted, and distinguishing is allowed in arguments, it is apparent that simply granting the question without distinguishing is a fault. Hence, even if he is not [refuted], his statement is at least like the [statement] that has been refuted. Nonetheless, it often transpires that, although they see the amphiboly, they hesitate to distinguish so that they do not seem trivial about everything because of the prevalence of people who ask such [questions]. Accordingly, when they thought an argument would not result from [the amphiboly], they often met a paradox. Therefore, since distinguishing is allowed, one must not hesitate, just as it was said earlier.

If no one made two questions into one, then there would not be a fallacy from equivocation and a fallacy from amphiboly, but either a refutation or not. For what is the difference between asking if Callias and Themistocles are musical and [what a person would ask] if they both—being different—had one name? For if [the name] signifies more than one thing, then he asks more [than one question]. For if expecting to receive simply one answer for two questions is incorrect, then clearly it is improper to answer any equivocal question simply, even if it is true according to all [the meanings], as some people claim to be the case. For it is no different than if he asked whether Coriscus and Callias are at home or not at home—whether both are present or not present—because in both cases there are many premises. For if a saying is true, it is not one question because of this. For it is possible that it is true to say simply "yes" or "no" when asked a countless number of different questions. Despite this, one should not give one answer because it ruins the discussion. This [situation] is like what would happen if the same name were applied to different things. Therefore, if one should not give one answer for two questions, then clearly neither should we say "yes" or "no" in cases of equivocation. For the speaker, instead of answering [the question], only spoke. Still, among disputants, it is somehow assumed so because they do not notice the result.

Now, as we said, since some arguments seem to be refutations but are not, in the same way some things seem to be untyings but are not. Indeed, we say that sometimes one should use these [apparent untyings] more than true [untyings] in competitive arguments and in responding to what is twofold. In the case of what is reputable opinion, we should answer by saying "it is." For [answering] in this way makes a side-refutation least likely. On the other hand, if one is forced to say something paradoxical, in this situation especially we must add "it seems so" because in that way there can be no appearance of either refutation or paradox. Since it is clear how one begs the

original [question], people think we should do away with any [premise] near [the conclusion] and never concede it on the ground that it begs the original [question]. Whenever someone asks for the sort of proposition that follows necessarily from the thesis, and it is false or disreputable, we should say the same thing. For necessary consequences seem to be part of the same thesis. Still whenever the universal is not taken in name but by way of a comparison, we should say that [the questioner] does not take it as it was granted nor as he put it forward; for often a refutation occurs even from this.

When a person is prevented from [using] these [solutions], he should pass to the objection that [the argument] has not been properly represented, responding to it according to the mentioned definition.

Now, when names are said properly, one must either answer simply or by distinguishing. When we grant [questions] while supplying context in [our] thought, e.g., all questions that are asked not distinctly but in a shortened way, the consequence is a refutation. For instance, *Is it the case that what is 'of the Athenians' is the property of the Athenians? Yes; and likewise, with other cases. Well then, is man 'of the animals?' Yes. Hence, man is a property of animals. For we say that man is 'of the animals' because he is an animal, and Lysander is 'of the Laconians' because he is a Laconian.* Therefore, when [the question] put forward is indistinct, clearly it should not be conceded simply.

Whenever it seems that if one (A) of two [premises] is so, then the other (B) is necessarily so, and the other (A) is not necessarily so when the latter (B) is so, then one should grant the weaker before [the stronger]. For it is more difficult to syllogize from more things.

If [an interlocutor] argues that there is a contrary to one, but there is not a contrary to the other—when the argument is true—you should say that there is a contrary of the other but it has no established name.

Regarding some of the things that they say, many people would say that anyone who does not agree with them is mistaken, but not [regarding] others, as for instance, opinions upon which people dispute (because many people are not decided whether the soul of animals is destructible or immortal). Accordingly, in those things in which it is unclear whether what is put forward is said with custom—whether as judgments, (for they call judgments both true opinions and general statements), or as "the diagonal is incommensurate [with the sides of a square]" of which the truth is doubted—someone may readily escape detection when he changes the names for things. On the one hand, he will not appear to be a sophist because it is unclear which of the two is true. On the other hand, he will not seem to be mistaken because it is doubted. For the change will make the statement irrefutable.

25 Moreover, he should object to whatever questions he foresees and say it beforehand because in this way he may most effectively derail his questioner.

Chapter 18: Untying Fallacies in General

A correct untying is the exposure of a false syllogism, [namely
30 exposing] from what sort of question the falsehood ensues, and a syllogism is called false in two ways: either if it has syllogized the false or if it appears to be a syllogism, when it is not. There may be, then, the untying just mentioned or the correction of an apparent syllogism [by exposing] the question due to which it appears [to follow]. Consequently, the untying of [an argument] that
35 has been syllogized results from doing away with the argument's [premise], while [untying others] that appear [to have been syllogized] is by distinguishing. Again, since some of the arguments that have been syllogized have a true conclusion, but some a false, one can untie [arguments] with a false conclusion in two ways: either by doing away with one of the questions
177a1 or by showing that the conclusion is not so. But [one can] only [untie arguments] with false premises by doing away with [a premise] because the conclusion is true. Accordingly, those wishing to untie an argument should first consider if it is syllogistic or unsyllogistic, then whether the conclusion is true or false. Hence, we untie either by distinguishing or doing away [with a
5 premise], and by doing away [with a premise] either in one way or another as was mentioned earlier.

It makes the greatest difference whether or not one unties the argument while he is being questioned because foresight is difficult, but seeing at leisure is easy.

Chapter 19: Untying the Fallacies of Equivocation and Amphiboly

Now, some refutations from equivocation and amphiboly consist of a question signifying more [than one thing], but others consist of the conclusion being said in many ways. For example, the conclusion in "speaking of the silent" is twofold, but one of the questions is an amphiboly in "the one who knows not knowing fully." And the twofold sometimes is but sometimes is not, but the twofold signifies, on the one hand that which is and on the other hand that which is not.

Therefore, whenever what is [said] in many ways is in the conclusion, there is no refutation unless he obtains the contradiction in addition, as for example, in "sight of the blind;" for there would not be refutation without contradiction. Whenever [what is said in many ways] is in the questions, it is not necessary to deny beforehand what is twofold because the argument is not towards this, but on account of this.

At the beginning, therefore, one should answer against both the double name and speech as follows: it is in one way, but it is not in another way, as for example that "speaking of the silent" is [possible] in one way but not in another. Again that "things which need to be" are things which must be done and are not things which must be done because "things which need to be" is said in many ways. If [the double meaning] goes undetected, one should correct it at the end by adding to the question, *Is there speaking of the silent? No, but there is speaking about him*. Again, [one should answer] likewise when what is has several meanings in the premises, *Do they not fully know what they know? Yes, but they do not know in this way*. For it is not the same thing [to say] that it is not possible [that those who know] fully understand and [to say] that it is not possible that those who know in this way [fully understand].

In general, one should argue that he did not deny the thing that he affirmed, but the name, so that there is no refutation—even if [the sophist] syllogizes simply.

Chapter 20: Untying the Fallacies of Composition and Division

It is also evident how one should untie arguments from composition and division. For if the argument, when composed, signifies something different from when it is divided, one should say the contrary when he concludes. All of the following questions (λόγοι) are from composition and division: *Was he struck with what you saw him being struck with?* Again, *Did you see him with what he was struck with?* Now, this has something of the questions from amphiboly, but it is from composition. For that from division is not twofold because when it is divided it is not the same speech, since "r*e*cord" and "rec*o*rd" said without the accent signifies a different thing. Yet in written works, the name is the same, whenever it is written with the same letters and in the same [order]—although even here they already add additional signs—but the sounds which are uttered out loud are not the same. Accordingly, that from division is not twofold, and it is manifest that not all [apparent] refutations are from the twofold, as some people say.

Therefore, the answerer should distinguish because "to see someone being beaten with your eyes" is not the same thing as saying "to see with your eyes someone being beaten." Again, Euthydemus' saying, *In Sicily, do you know about the triremes in Piraeus?* And again, *Can a good man who is a cobbler be a bad man? Yet, there may be a good person who is a bad cobbler; so, he will be a good bad cobbler*. Or again, *Is it the case that things—the knowledge* (ἐπιστήμη) *of which is good—are good to learn? But knowledge of the bad is good; thus, bad learning is good. But the bad is both bad and a learning, so bad learning is bad, but knowledge of bad things is good*. Again, *Is it true to say now that you have come to be? Thus, you have come to be now*. Or, does it signify something different when it is divided? For it is true to say now that you have come to be, but not that you have come to be now. Again, *Can you do what you are able to do as you are able? Yet, while you are not playing the cithara, you have ability to play the cithara; hence you are able to play the cithara while you are not playing the cithara*. Rather, he does not have this ability: to play the cithara when he is not playing the cithara, but when he is not playing, he has [the ability] of playing.

Some also untie this [example] in another way. For they say that if an [answerer] grants that he does as he is able, it does not follow that he can play the cithara when he is not playing it. For it has not been granted that he will do as he is able to do in every way; and "to do as he is able" and "to do in every way as he is able" are not the same thing. Clearly, they do not untie [these arguments] properly because arguments from the same [place] have the same untying. Moreover, this will not fit for all instances [of the fallacy]

nor in all ways of questioning; for it is not relative to the argument, but rather, to the questioner.

Chapter 21: Untying the Fallacy of Accent

35 There are no arguments from accent—either as written or as spoken—except for some which might occur, as the following: *Is it the case that where you reside* (οὗ καταλύεις) *is a house? Yes. Is it the case that "you do not reside"*
178a1 (οὐ καταλύεις) *is the denial of "you reside." Yes. Still, you said that where you reside is a house; hence a house is a denial*. Surely, it is clear how one should untie [this fallacy] because what is said with a flat accent does not signify the same thing as [what is said] with a sharp accent.

Chapter 22: Untying the Fallacy of Figure of Diction

It is clear also how one should reply to [fallacies] from things said in the same way, [but] are not the same, since we grasp the kinds (γένη) of categories (κατηγορίαι). For the [answerer] granted, when asked, that one of the [words] that signifies a 'what it is' does not belong [as a predicate]. The [questioner], however, showed that some relative or quantity—which seems to signify 'what it is' because of the speech—belongs. For example, [the fallacy of figure of diction used] in the following argument*: Is it possible both to act upon and to have acted upon the same thing at the same time? No. Nonetheless, surely it is possible to see something and at the same time to have seen the same thing according to the same [respect]*. Again, *Is there an instance of acting that is an instance of undergoing? No. Nonetheless, "is cut," "is burnt," and "is perceiving" are all said in the same way and all signify an instance of undergoing. And again "to say," "to run," and "to see," are all said in the same way. But surely "to see" is an instance of perceiving, so that it is both something of undergoing and acting upon at the same time*.

Of course, in the former case, if someone—who granted that it is not possible to act upon and to have acted upon the same thing at the same time—were to say that seeing and having seen is possible, he would not yet have been refuted, [i.e.,] as long as he said that seeing is not an instance of acting upon but of undergoing. For this question is necessary as well. Still, the listener assumes he has granted it when he granted that "cutting" is an acting upon, and "having cut" a having acted upon; and so on with other things expressed in a like manner. For the listener himself adds what is left out supposing that it is said in a like manner. But really, it is not said in a like manner, but seems to be on account of speech. The same thing occurs as in equivocals because, in the case of equivocals, the man who is ignorant of arguments supposes that he denied the thing which he affirmed, and not the name. However, an additional question is necessary: does [the answerer] say the equivocal name with one thing in view, [or not]? For if he grants this, he will be refuted.

The following arguments are like the [arguments mentioned] above: *A person lost what he had [before], if he no longer has it. For he who lost only one die will not have ten dice*. Rather, he has lost *what* he does not have, though he had it before. But, it is not necessary that he lost *as much* or *as many* as he does not have. Thus, after the questioner asked about *what* the man has, he concludes with regard to the '*how many*.' For the 'how many' is ten. Consequently, if [the questioner] asked from the beginning, *Has a person lost as many things as he had before but no longer has?*, then no one would grant it. Instead [he would

only grant] either so many or a part of them. Again, [it is argued] that someone may give what he does not have because he does not have only one die. Or, he has not given *what* he does not have, but *as* he does not have it, i.e., [insofar as it is only] one die. For 'only' does not signify a 'this' (τόδε) or
178b1 a quality (τοιόνδε) or a quantity (τοσόνδε). Rather ['only' signifies] how something relates to another: for instance, that something is not with another. It is as if he asked *Can someone give what he does not have?* and then, after the answerer denies this, he asked if someone could give something quickly which he has not received quickly; and when the answerer affirms this, he were to syllogize that someone could give what he does not have. Evidently,
5 he has not syllogized because [to give] quickly is not to give a 'this' (τόδε) but to give in a certain way (ὥδε). And someone might give something in a way in which he did not receive it: for instance, when one receives something with pleasure, he may give away it with pain.

All of the following [arguments] are similar: *Could someone punch with*
10 *a fist he does not have?* Or, *Could he see with an eye he does not have?* For he does not have only one. Now, some people untie this by saying that someone who has more than one eye (or whatever else) also has only one. Some others untie it the way [they untie the argument] that a man received what he has: this man (A) gave only one counting stone; and that man (B) surely has, they say, one counting stone from him (A). Others directly do away with the question saying that he (B) can have what he (B) has not received. For
15 instance, a man can have sour wine, although he received a good wine because it was spoiled at the time of reception.

Still, as mentioned earlier, all of these [people] do not untie in relation to the argument, but in relation to the man. For if this was an untying, then someone, who grants the opposite, would not be able to untie [the argument], just as it is in other cases. For example, if the untying is *it is in a*
20 *certain respect but not in another,* then, if the [answerer] granted that it is said simply, [the argument] would conclude. If it does not conclude, then it would not be an untying. In the mentioned [examples], we say that there is no syllogism, even when all [the opposite answers of the proposed solutions] are granted.

Moreover, the following [examples] also belong to this group of
25 arguments: *Is it the case that what is written, someone wrote? It is written that "You are seated," which is now a false statement. Yet, it was true when it was written. Thus, the true and the false were written at the same time*. For that a statement or opinion is true or false does not signify a 'this' (τόδε), but a quality (τοιόνδε). (For the same account also applies to an opinion.) Again, *Is*
30 *what the learner learns that which he learns? Yet, someone learns quickly about the*

slow. Well then, he has not spoken of *what* he learns but *how* he learns. Again, "Is it the case that someone treads on that through which he walks? But he walks through the whole day." Rather he has not spoken of *what* he walks through, but *when* he walks, nor does "to drink a cup" [signify] *what* he drinks, but *out of what* [he drinks.] Further, *Is it the case that what someone knows, he knows either by learning or by discovering it [himself]? But if he discovered one of two things and learned the other, then he [does not know] both in either way*. Rather, does 'what' hold of each thing, but not of all things [together]?

Again, there is the argument that there is a third man apart from [man] itself and particular [men]. For 'man' and every common [name] does not signify a 'this something' (τόδε τι) but a certain such (τοιόνδε) or a quantity or relation or something of this sort. It is likewise in the case of 'Coriscus' and 'musical Coriscus'—are they the same or different? For the one signifies a 'this something' (τόδε τι) but the other signifies a such (τοιόνδε). Consequently, it is not possible to set it out. 'Setting out' does not produce the third man, but conceding that it a 'this something' (τόδε τι) does. For what man is cannot be a 'this something' (τόδε τι), as Callias is. Nor will it make a difference if someone should say that the thing being set out is not what a 'this something' (τόδε τι) is, but what sort of thing; for what is apart from the many will be something one, as for instance, 'man.'

Evidently then, one should not concede that what is predicated in common is a 'this something' (τόδε τι) in all cases, but that it signifies either a such (ποιός), or a relation, or a quantity (ποσός), or something of this kind.

Chapter 23: Untying Fallacies from Speech in General

On the whole, an untying of arguments from speech will always be according to the opposite of the source of the argument. For instance, if the argument is from composition, then the untying is by division, but if from division, then by composition. Again, if it is from a sharp accent, then the untying is a flat accent, but if from a flat, a sharp. If it is from equivocation, one can untie it by using the opposite name. For example, if a person happens to say that something is un-souled—after denying that it is—clearly, he should say in what sense it is ensouled. But if he said that it was un-souled, and then syllogized that it was ensouled, he should say how it is un-souled. One should untie cases of amphiboly in a similar manner. If the argument is from a likeness of diction, then the untying will be from the opposite. For instance, *Is it the case that someone may give what he does not have?* Rather, it is not *what* he does not have but *how* he does not have, e.g., "one die alone." Or, *Is it the case that one knows [singly] what he knows either through learning or discovery?* Nonetheless, it is not the *things* [collectively] which he knows [either through learning or discovery]. Again, he treads upon *what* he walks through, but not *when*. One should untie all other cases similarly.

Chapter 24: Untying the Fallacy of the Accident

There is one and the same untying for all [fallacies] from accident. For it is indefinite when a person should say that something belongs in the thing {πρᾶγμα}, when it belongs in its accident. And in some cases it seems [to belong]—and they say so—but in other cases they say that it is not necessary. Consequently, when the conclusion has been drawn, one should say for all alike that it is not necessary—though he ought to have an example to put forward.

The following sort of arguments are all from accident: *Do you know what I am about to ask you?* or *Do you know who is coming?* or *[Do you know] who is veiled?* or *Is the statue your work?* or *Is your dog a father?* or *Is a few times a few a few?* For it is clear that in all these [examples] what is truly predicated of the accident is not necessarily [truly predicated] of the thing (πρᾶγμα) also. For all the same [predicates] seem to belong only to whatever is one and undifferentiated according to substance. Yet, in the case of the good, "to be
179b1 good" and "to be asked about the good" are not the same—nor in the case of who is coming (or in who is veiled): "to be coming" and "to be Coriscus" [are not the same]. Accordingly, if I know Coriscus, but I do not know who is coming, it does not follow that I know and do not know the same thing. Nor is [the statue] my work, if it is mine and it is a work. Rather, it is my property or thing or something else. [One should untie] other cases in the same way.

Some untie this by doing away with the question because they claim a person can know and not know the same thing, but not in the same [respect]. Accordingly, by not knowing who is coming but knowing Coriscus, they claim they know and do not know the same thing—but not in the same [respect]. And yet, in the first place—as we said already—the solution of arguments from the same [source] must be the same. This [solution] will not hold if someone adopts the same axiom: not in the case of knowing, but in the case of being or being in a certain state (e.g., "If this is a father and is yours"). For if this [solution] is true in some cases, namely, that a person can know and not know the same thing; still, the proposed [solution] has no share in these [other] cases.

There is nothing to prevent the same argument from having many faults. But the exposure of every fault is not an untying. For someone can show that a falsehood has been syllogized, but not show *that from which* [it has been syllogized], as [with] Zeno's argument that to be moved is impossible. Therefore, even if someone attempts to prove that [motion] is possible, he misses the mark—even if he syllogizes it ten thousand times. For this is not an untying. Instead an untying is an exposure of a false syllogism,

[i.e., exposing] *that from which* it is false. If, therefore, [a sophist] has not
25 syllogized—whether he attempts to prove something false or even something true—clarifying this is untying.

Perhaps, there is nothing to prevent this [solution] from holding in some cases. Except in these cases, at any rate, this would not seem to be so. For one knows both that Coriscus is Coriscus, and that the person who is coming is the person who is coming. To know and not to know the same
30 things seems possible: as to know that he is white, but not to know that he is musical. For thus, he knows and does not know the same thing, but not in the same [respect]. He knows who is coming, i.e., Coriscus, both that he is who is coming and that he is Coriscus.

Similarly, people who untie [the argument concluding] that every
35 number is small miss the mark in the same way as those already mentioned. For, although [the argument] does not conclude, if they omit this [fact] and say it has concluded a truth (because every [number] is both many and few), then they miss the mark.

Some people also untie syllogisms by means of the twofold, as for example, [in the argument] that it is your father, or son, or slave. And yet, if
180a1 the refutation appears to be from what is said in many senses, then evidently the name or speech must apply properly (κυρίως) to many things. But no one says properly that this child is of this man when [the man] is child's master.
5 Rather the composition is by the accident: *Is he yours? Yes. But he is a child; thus, he is your child*. But he is not your child because he happened accidentally to be both yours and a child.

Also [there is the argument] that 'something *of evils'* is good because prudence is a 'knowledge (ἐπιστήμη) *of evils*.' But 'this is *of these*' is not said
10 in many ways; rather, [it expresses] possession. If perhaps [the genitive is said] in many ways—for we also say that man is *of animals*, but not [that he is] some possession [of animals]; even if anything related to evils is described as *of something*, it is *of evils* for this reason, but it is not [one] of the evils—then [the argument] seems to be from simply and in a certain respect. Yet, perhaps
15 something *of evils* can to be good in two ways, but plainly not in this argument, but rather if some good slave should be *of the wicked*. Though perhaps it is not so. For if something is good and *of him* {=his}, it is not at once the good *of him* {=his}. Nor is the saying that 'man is *of animals*' said in many
20 ways, for if we signify something by truncation, it is not said in many senses. For example, we also say half of the phrase as when [we say] "Sing, goddess, the rage" to signify "Give the Iliad to me."

Chapter 25: Untying the Fallacy of What is Simply and What is in Some Respect

One should untie arguments from something being said properly or in a certain respect—or somewhere or in some way or relative to something, and not simply—by considering the conclusion against its contradiction, i.e., if [the conclusion] can be subject to any of these [qualifications]. For contraries, opposites, and affirmation and negation, cannot belong simply to the same thing. There is nothing to prevent each belonging in a certain respect or relative to something or in a certain manner, or one simply but the other in a certain respect. Consequently, if one belongs simply, but the other belongs in a certain respect, there is not yet a refutation. We should look for this feature in the conclusion with relation to its contradiction.

All the following such arguments have this [characteristic]: *Is it possible that nonbeing is? But surely it* ***is*** *something which is not*. Similarly, *Being will not be also because it will* ***not be*** *something of the things that are.* Or, *Is it possible for the same person to be honest and dishonest at once?* or *Is it possible for the same person to obey and disobey the same person at once?* Rather, to be something and to be are not the same (for nonbeing, if it is something, is not simply). Nor if a person is honest about this or in this [respect], must he be honest. For the one who swears that he will be dishonest is honest only when he is dishonest about this. Yet he is not honest; nor does the disobedient person obey, but he obeys something. The argument about the same person being honest and dishonest at once is similar. It appears troublesome, however, because it is not easy to see whether one should concede that he is honest or dishonest simply. Nothing prevents him from being a liar simply but truthful in some respect or about something, namely, to be true in some [oath] but not to be himself truthful.

It also occurs similarly in cases relative to something, and in some place, and at some time. All of the following arguments result from this: *Is health (or wealth) good? But to the fool who also does not use it rightly, it is not good. Therefore, the good is not good*. Or, *Is being healthy (or being powerful in the city) good? But there are times when it is not good. Therefore, the same thing is good and not good for the same person*. Rather, is there something to prevent what is good simply from not being good for this person, or good for this person, but not good now or here? *Is it the case that what the prudent would not wish for is bad? Nonetheless, he would not wish to throw away the good. Consequently, the bad is good*. [This is fallacious] because to say that the good is bad is not the same as saying that throwing away the good [is bad]. Also, the argument about the thief is [fallacious] in a similar way. For if the thief is bad, obtaining [goods] is not bad too. He certainly does not wish for evil but for good because

obtaining [goods] is good. Again, disease is bad, but not the expulsion of disease.

Is the just preferable to the unjust, and the 'justly' to the 'unjustly'? But to be put to death (ἀποθανεῖν) unjustly is preferable. Again, *Is it just that each person has his own things? Still, whatever things [the legislator] decides according to his opinion, even if they are false, have authority from the law. Therefore, the just and what is not just are the same*. Again, *Which of the two ought one to bring to trial: the one who says just things, or the one who says unjust things? But it is just for the one who suffered injustice to say adequately what he suffered, but these are unjust*. For even if it is preferable to suffer something unjustly, it does not follow that the 'unjustly' is not preferable to the 'justly.' Rather the 'justly' [is preferable] simply. Nonetheless, nothing prevents the 'unjustly' to be preferable to the 'justly' in this [instance]. Again, having one's own things is just; having another's things is unjust. Still, nothing prevents this decision from being just, for example, if it is according to the judge's opinion. For if something is just in this or that way, it is not also just simply. Likewise, although things are unjust, nothing prevents talking about them from being just. For if to speak is just, it does not need to be about just things any more than if to speak were helpful, would it need to be about helpful things; and similarly with just things. Accordingly, if what is said is unjust, it does not follow that someone who talks about unjust things wins [the trial] because he talks about things that are just to say. But simply, they are unjust to suffer.

Chapter 26: Untying the Fallacy of Ignorance of Refutation

181a1 Now for those arguments which result from the definition of refutation—as written before—one must reply by considering the conclusion against the contradiction. [This is] to ensure that it will be of the same, according to the same, relative to the same, in the same way and at the same time. If in the beginning it is asked in addition, one must not accept that it is impossible for the same thing to be double and not double. Instead one must say [it is possible], only not in the way it was once accepted to constitute a refutation. All of the following [examples] are due to this sort of thing: *Does the person who knows that this is that know the thing? And is it similar with one who is ignorant? However, someone who knows that Coriscus is Coriscus might be ignorant that he is musical. Hence, he knows and is ignorant of the same thing*. Or *Is a magnitude that is four cubits long greater than a magnitude that is three cubits long? But it may come to be four cubits long from being three cubits. Thus, the greater will be greater than the lesser. Therefore, the same is greater and less than itself.*

Chapter 27: Untying the Fallacy of Begging the Question

If it is obvious, one should not concede—by saying what is the case—[a question] that begs or assumes the original [problem]—not even if it is an endox. If it goes unnoticed, one should, on account of the vileness of such arguments, turn the ignorance (ἄγνοια) back upon the questioner on the ground that he has not practiced dialectic. For a refutation is without [assuming] the original [problem]. Next, [the answerer should say] that he did not grant [the original problem] to be used [as a premise], but for [the questioner] to syllogize against. And this is contrary to what occurs in side-refutations.

Chapter 28: Untying the Fallacy of the Consequent

And one should expose [fallacies] that conclude through the consequent in respect to the argument itself. Consequents follow in two ways: either as the universal follows from the particular (ἐν μέρει): as the animal from man (because it is supposed that if this (A) is with this (B), then this (B) also is with this (A)); or according to oppositions: for if this follows this, the opposite follows the opposite. Mellissus' argument depends on this. For if what has come to be has a beginning, he thinks that what has not come to be does not have a beginning. Thus, if the heavens have not come to be, then they are infinite also. Nonetheless, this is not the case because the implication is in reverse.

Chapter 29: Untying the Fallacy of Taking the Non-cause as Cause

Again, in fallacies that syllogize with some additional [premise], consider if the impossibility follows even when the addition is subtracted. Thereupon one should manifest this and say that he granted [the addition] not because he believed it, but for the sake of the argument; and that the questioner has not used it for the argument.

Chapter 30: Untying the Fallacy of Making Many Questions One

Now, for [fallacies] that make many questions one, one should distinguish immediately in the beginning. For a question is one when it has one answer. And so, one should neither affirm nor deny many answers for one question nor one answer for many questions; but rather, [one should have] one answer for one question. Just as it is in the case of equivocals,
181b1 where sometimes [an attribute] belongs to both [meanings of the equivocal word] but other times to neither (such that a simple answer does not bring a disadvantage to the answer, even though the question is not simple), so too in these cases. Thus, whenever many [attributes] belong to one [subject] or one [attribute] to many, no contradiction follows for the one conceding
5 simply—even though he has made this mistake (ἁμαρτία). [A contradiction does follow], however, whenever [an attribute] belongs to one [subject] but not the other, or many [attributes] to many. Again, in a way both belong to both but, then again, in a way neither belong to either. Accordingly, one should watch out for this, for instance, in the following arguments: *If one*
10 *thing is good, but another bad, then to say that these are good and bad is true, and in turn [it is true to say] that these are neither good nor bad (because both are not both). Hence the same thing is good and bad and neither good nor bad*. Again, *If each itself is the same as itself and different from the other (since they are not the same as the*
15 *others but the same as themselves, and also different from themselves), then the same things are both different from and the same as themselves*. Moreover, *If the good becomes bad, and the bad, good, then they would become two*. Moreover, *So of two unequal things—each itself being equal to itself, it follows that they are equal and unequal to themselves*.

Now the above [arguments] fall under other untyings also because
20 "both" and "all" are said with more than one meaning. It certainly does not follow that one affirms and denies the same thing except in name. And this would not be refutation. Instead, there will clearly be no impossibility when an interlocutor affirms or denies one [term] of one [term], and one question is not posed of many things.

Chapter 31: Untying Arguments Leading to Babbling

Concerning [arguments] that lead a person into saying the same thing many times, evidently one should not grant that predicates of relative terms signify anything in isolation by themselves. For example, [one should grant that] "double" without "double of the half" [signifies anything] because the former appears in the latter. For "ten" is in "ten minus one," and "to do" is in "not to do," and generally an affirmation is in its contradiction. But all the same, supposing someone says that this is not white, he does not [thereby] affirm that [the same thing] is white. Perhaps "double" does not signify anything, in the same way that neither does "half." And even if it does signify something, it still does not signify the same thing as when combined [with the other term]. Nor does knowledge (ἐπιστήμη) in a specific kind [signify] the same thing as it does in general (as for example if it is medical knowledge); but, in general, it is knowledge of the knowable. When dealing with predicates of terms by means of which [the predicates] are indicated, one should say that the indicated [predicate] is not the same in isolation as it is in an account. For "concave" has the same general meaning [when it is said] concerning the snubbed and the bow. And nothing prevents it from signifying different things when it is applied (ῥοστιθέμενον) to the nose or to the leg. For here it signifies the snub-nosed, and there it signifies the bow-legged; and to say "a snub nose" is no different from saying "a concave nose." One should not grant this speech in the nominative. For it [would be] false. For snubbed is not a concave nose, but something of a nose, i.e., something [the nose] suffers. Accordingly, there is nothing strange if a snub nose is a nose which has a concavity of the nose.

Chapter 32: Untying Arguments Leading to Solecism

Concerning solecisms, we have already said on account of what each seems to follow; and now it will be evident, concerning the arguments themselves, how one should untie them. For all the following arguments fabricate [solecism]: *Is it the case that something is truly that* (τοῦτο) *which* (ὃ) *you call it truly? But you call something* (τι) *a stone* (λίθον). *Therefore, something* (τι) *is a stone* (λίθον). Rather to call it a "stone" (λίθον) is not to call it "what" (ὃ) it is but "whom" (ὅν), nor "thing" (τοῦτο) but "him" (τοῦτον). If, therefore, someone were to ask, *Is it the case he is truly him* (τοῦτον) *whom* (ὅν) *you call him truly?* he would not seem to be speaking common Greek, just as if he were to ask, *Is it the case that he* (οὗτος) *is her whom* (ἣν) *you say he is?*

Yet, it makes no difference to speak this way of "log" (ξύλον), or of whatever things signify neither feminine nor masculine. And, therefore, there is no solecism: *If what you say it is, it is, but you say it is a log, therefore it is a log*. But "stone" (λίθος) and "he" (οὗτος) have a masculine inflexion. At least if someone were to ask, *Is he* (οὗτος) *she* (αὕτη)*? A*nd then in turn, [if one were to ask] *But what? Is he not Coriscus?* and then after say, *Therefore he is she*, then as long as the answerer does not concede this, he would not have syllogized a solecism—not even if "Coriscus" signifies a "she." Rather one must ask this supplementary question. But if it is so, and he does not grant it either, then it is not syllogized: neither in reality, nor with respect to answerer.

Likewise, then, "he" (οὗτος) must signify the stone even in the above example. If it is not so, and he does not grant it either, one should not state the conclusion, although it appears [to follow] because the word's dissimilar case appears to be similar. *Is it true to say that this* (αὕτη) *is whatever you say she is? You say that this is a shield* (ἀσπίδα); *therefore, this* (αὕτη) *is a shield* (ἀσπίδα). Rather it is not necessary if "this" (αὕτη) does not signify shield (ἀσπίδα) but shield (ἀσπίς), and "this" (ταύτην) signifies shield (ἀσπίδα). Nor if what you say he (τοῦτον) is, he (οὗτος) is, but you say that he {τοῦτον} is Cleon (Κλέωνα), and therefore he (οὗτος) is Cleon (Κλέωνα). For he (οὗτος) is not Cleon (Κλέωνα) because the question was that he (οὗτος) and not him (τοῦτον) is what I say he is. For if the question is asked in this way, it would not be Greek.

Again, *Do you know this* (τοῦτο)*? But this* (τοῦτο) *is a stone* (λίθος). *Therefore, you know a stone* (λίθος). Rather, "this" (τοῦτο) does not signify the same thing in the statement *Do you know this?* and in the statement *This is a stone*, but it signifies this (τοῦτον) in the earlier one and this (οὗτος) in the later one. Again, *Is it the case that you know that* (τοῦτο) *of which* (οὗ) *you have knowledge? But you have knowledge of a stone* (λίθου)*, therefore you know of a*

stone (λίθου). Rather in the one, "of which" (οὗ) is said of "of a stone" but in
182b1 the other, "this" (τοῦτο) [is said of] a "stone" (λίθον). But it was granted that you know that *of which* you have knowledge, and you know "that," not "of that," so that you know "stone," not "of a stone."

Now it is clear from what has been said that the aforesaid kind of
5 arguments do not syllogize but [only] appear to, and both through what they appear to and how one should reply to them.

Chapter 33: Difficult and Easy Untying

It must also be understood that of all [the aforesaid] arguments, that some are easier, while others are more difficult, to discern from what and in what the listener commits fallacies—though [the cause of the more difficult] is often the same as [the cause of the easier]. For one must call arguments from the same [place], the same. Nonetheless, the same argument appears to some to be from speech, but to others to be from accident, and still to others to be from something else. For each, when carried over, is not equally clear. Accordingly, just as in [fallacies] from equivocation—which seem to be the most guileless form of fallacy—some are clear even to the vulgar. (For almost all comical arguments are from speech. For example, *A man carried the chariot down the ladder*, and *Where are you bound? Towards the yardarm*, *Which of the two cows gave birth earlier? Neither, but both gave birth in the rear*, and *Is the North Wind clean? No, not at all, for he killed the beggar and the drunk*. Again, *Is he Meek? "No, not at all, he is Wilde.* And most other comical arguments also occur in the same way.) Nonetheless, other [fallacies from equivocation] appear to go undetected even by the most experienced. (A sign of this is that they often fight about names, as for example, whether "being" and "one" signify the same thing in all cases, or something different. For to some "being" and "one" appear to signify the same thing; but others untie the argument of Zeno and Parmenides by saying that "being" and "one" are said in many ways.) Similarly, concerning arguments from accident and each of the other arguments, some will be easier to examine, but others more difficult. And grasping what genus each argument is in, and whether it is a refutation or not, is not equally easy in all cases.

A subtle argument is one that produces the most perplexity; for it has the greatest sting. The perplexity is twofold: one, in [arguments] that syllogize, which of the questions one should do away with; the other, in those that are contentious, how one should address [the question] put forward. Thus, in those that syllogize, subtler arguments force one to inquire further. A syllogistic argument is subtler if it does away with what is especially endoxical based on exceedingly reputable opinions. For though it is one argument, when the contradiction is transposed, it will result in
183a1 syllogisms that are all similar because it will always do away with an endox from equally endoxical [premises]. Accordingly, he is necessarily perplexed. Therefore, this sort of argument—one that produces the conclusion equal to the questions—is subtle, but [an argument] that depends on [questions] that are all alike is second. For this argument will likewise make one perplexed about what sort of questions he should do away with. Herein is a difficulty.

For he must do away with one, but it is unclear which one he must do away with.

The subtlest contentious argument is, first, one that is initially unclear whether it is syllogized or not, and also whether the untying depends on a falsehood or a distinction. Second is the one where the untying clearly depends on a distinction or doing away with [a premise]—though it is not evident which question one should do away with or distinguish when untying [the argument], or whether it depends on the conclusion or on one of the questions.

Sometimes, therefore, an argument which does not syllogize is guileless if the premises are quite improbable or false. Yet, sometimes the argument is not worthy of being looked down upon. For whenever some question—of the sort concerning what the argument is about and through what [the argument] is—is left out, the argument is guileless. For it has not secured this in addition and has not syllogized. But whenever something superfluous [is left out], the argument is in no way easily looked down upon, but is reasonable. Still, one of the questions has not been asked well.

And just as it is possible to untie sometimes towards the argument, sometimes towards the questioner and the questioning, and sometimes towards neither of these, likewise it is also possible to ask and to syllogize towards the thesis, towards the answerer, and towards the time—whenever the untying requires more time than is presently available to untie dialectically.

Chapter 34: Epilogue

Now, from how many and from what sort of [places] fallacies come to be among those practicing dialectic—and both how we are to show that someone speaks falsely, and how to make him state paradoxes; and from what [places] solecism results; and how we should question and what the question's arrangement should be; and for what all such arguments are useful; and about answering, both generally and every [particular kind]; and how we should untie arguments and solecisms—let what we have said about all of these things be sufficient for us. There remains, by recollecting the initial purpose, to say something brief about it and to draw what has been said to an end.

Now, we undertook to find a certain ability to syllogize about a presented problem based on the most endoxic beginnings possible because this is dialectic's proper [καθ᾽ ἁυτὴν] activity and that of the testing art. But since it is further ascribed to [dialectic]—through its proximity to sophistic—that it can test not only dialectically but also as if with knowledge, we proposed therefore not only to unfold the discipline's stated proper activity—i.e., to be able to seize (λαβεῖν) an argument—but also how, when undergoing an argument, we should defend a thesis consistently through the most endoxic premises possible. We have mentioned the cause for this; and this was also why Socrates used to ask [questions], but never used to answer because he would not concede that he knew.

It has been clarified in the foregoing, for how many [problems dialectic is applicable], and from how many [premises] it will come about, and whence we will be well supplied with these, and further how we should ask and arrange every interrogation and about how we should answer and how we should untie syllogisms. Also, all the other things that belong to the same method of argument have been clarified. And, an addition to these things, we have gone through fallacies, as we already mentioned earlier.

Evidently, therefore, we have a fitting completion of what we have undertaken. Nonetheless, what has happened concerning the treatment must not go unnoticed by us. For, among all discoveries, those grasped from the earlier toil of others have progressed part by part by the successors coming after. But original discoveries have customarily made little progress at first, though they are much more useful than what later developed out of them. For, as they say, the beginning is perhaps greater than everything, which is why it is also more difficult. For inasmuch as it is greatest in power, so too it is smallest in magnitude; and thus, it is the most difficult to see. But when this is discovered, it is easier to hand on and develop the rest. This is also the

very thing which happened in the case of rhetorical speeches, and also in the case of nearly all the other arts. For those who completely discovered beginnings, advanced unto something small; but those now highly esteemed—inheriting from many men who advanced as from succession part by part—developed [the art] in this way: Tisias after the founders, Thrasymachus after Tisias, Theodorus after him; and many men have contributed many parts. This is why it is no wonder that the art has a certain magnitude.

But concerning this discipline, it is not the case that some of this treatment was finished while other parts were not—but they had not even begun. For even the paid teachers' instruction concerning contentious arguments was like Gorgias' discipline. For some used to give rhetorical arguments to be learned by heart, while others [used to give] questioning [arguments to be learned by heart], which each supposed that most of the arguments of the other side would fall. Accordingly, their students had from them an instruction that was swift, but unartful. For they thought that they could teach by giving, not the art, but things taken from the art: just as if someone, after he claimed to hand down knowledge of how to prevent pain in the feet, did not teach shoemaking or where one would be able to procure such things, but rather gave many kinds shoe. He has assisted with respect to what was needed, but did not hand down an art.

Again, there already existed many and ancient writings about rhetorical [arguments], but about syllogistic ones, we had altogether nothing to mention from before. Rather toiling for a long time, we discovered by practice.

If it appears to you who wonder that the investigation—beginning out of such conditions—is fittingly well off alongside the other treatises built from tradition, the remaining proper activity for all of you, or our audience, is to have forbearance for the insufficiencies of the investigation and to have strong gratitude for its discoveries.

Commentary

Chapter 1: Nature and Existence of Sophistical Refutations

164a20-23. A number of ancient Greek philosophers and rhetoricians emphasize the importance of a good beginning. For instance, in the fragments of Antiphon we find, "When someone correctly begins something, no matter what it is, it is also likely to end correctly. Whatever seed one plants in the earth, one should expect the harvest to be similar" (Gagarin, 2002, p. 193). Characters in Plato's dialogues repeatedly underscore this idea: "For, as the saying goes, 'the beginning is half of the work,' and every man always commends a good beginning; but it is truly, as I think, something more than the half, and no man has ever yet commended as it deserves" (*Laws* 753e). Cf. also *Republic* 377a. Aristotle himself underlies a good beginning's importance in other places, "The beginning is admittedly more than half of the whole" (NE 1098b6-7). Cf. also, SE 183b23ff.

Why the emphasis on good beginnings? As is clear from the introduction, the etymology of "error" suggests that a mistake results from a disordered movement of reason—hence the importance of knowing what road or method to follow, both in general and in each particular science. As every artist must make certain steps before others, the philosopher must often consider some things before others. As Euclid said, "There is no royal road," (i.e., a way of circumventing the order of intelligibility for the sake of expediency), and a road implies an order. Cf. Morrow, 1992, p. 57. Failing to

take the proper road is to wander and err. Failing to make the proper beginning will result in a disordered movement of reason; it will result in error.

Aristotle and Plato are not only in agreement about the necessity of making a good beginning, but also about what makes a beginning good, and that is a natural beginning. In Plato's *Timaeus*, Timaeus asserts "Now in regard to every matter it is most important to begin at the natural beginning" (*Timeaus* 29b2-3). Further evidence from Aristotle, in addition to this passage in the *Sophistical Refutations*, can be found in an almost identical characterization at the beginning of his *Poetics*. Compare the Greek ἀρξάμενοι κατὰ φύσιν πρῶτον ἀπὸ τῶν πρώτων [beginning first from first things according to nature] (Poet 1447a12-13) to that of the current passage: ἀρξάμενοι κατὰ φύσιν ἀπὸ τῶν πρώτων (SE 164a22-23).

Still, the question remains: How does Aristotle make a natural beginning to the *Sophistical Refutations*? Albert the Great suggests that manifesting the subject matter's existence could be the beginning which Aristotle characterizes as first according to nature. At the start of the second book of Aristotle's *Posterior Analytics*, Aristotle states that there are four kinds of questions: that it is, on account of what it is, if it is, and what it is (APo 89b23-25). The first of these questions is if it is. Albert the Great notices this order, "*Incipiemus enim a quaestione, an est sophisticus elenchus, quae secundum naturam prima est inter quaestiones quator, quae de scibilibus fieri possunt, an est, quia est, quid est, et propter quid est.* [For we will begin with the question, if there is a sophistical refutation,

which is the first question according to nature among the four questions that can be made of knowable things, if it is, that it is, what it is, and on account of what it is.]" Cf. Albertus Magnus I, 1890, tr. 1, c. 2, p. 527ba. Before one can determine what the nature of the sophistical refutations are, it is natural that he first show that such things exist.

164a24-b26. The central argument in the first chapter is for the existence of sophistical refutations based on example. Naturally, it is clear to anyone who has experience with being deceived by fallacious arguments that they exist. Aristotle, however, may have felt the need to give an argument for the existence of sophistical refutations both because not everyone has this experience and because the argument reveals something about the nature of sophistical refutations.

Since the structure of any argument by example is complex, it may be helpful to note a few general points about this kind of argument. Aristotle makes two general claims about the argument from example. In the *Rhetoric*, he says that it is an argument from part to part: "The 'example' has already been described as one kind of induction; and the special nature of the subject-matter that distinguishes it from the other kinds has also been stated above. Its relation to the statement it supports is not that of part to whole, nor whole to part, nor whole to whole, but of part to part, or like to like" (Rhet 1457b26-30, trans. Roberts). Elsewhere, Aristotle shows that the argument from example is abnormal in that it involves four terms. He explains, "'Example' occurs when the major term is shown to belong to the middle by means of a term which is similar to the

third. It ought to be known both that the middle belongs to the third term, and that the first belongs to that which is similar to the third [Παράδειγμα δ' ἐστὶν ὅταν τῷ μέσῳ τὸ ἄκρον ὑπάρχον δειχθῇ διὰ τοῦ ὁμοίου τῷ τρίτῳ. δεῖ δὲ καὶ τὸ μέσον τῷ τρίτῳ καὶ τὸ πρῶτον τῷ ὁμοίῳ γνώριμον εἶναι ὑπάρχον]" (APr 68b38-40).

Aristotle manifests the meaning of these general claims with an example. Presumably the argument is formed by a speaker at a meeting where the Athenians must decide whether or not to make war with the Thebans. The speaker, wishing to avoid this war, argues that the war would be evil. That the war with the Thebans is evil is the ultimate conclusion of the argument. Since arguments from example have four terms, it cannot contain all four in one argument; there are actually two arguments, resulting in a first conclusion, then a second ultimate conclusion.

In his explicit words, the speaker argues, "The war of the Athenians against the Thebans is an evil because war of the Thebans against the Phocians was evil" (cf. APr 69a1-19).

Premise: Thebans vs. Phocians is evil

Conclusion: Athenians vs. Thebans is evil

While inductions characteristically move from particular premises to a universal conclusion and syllogisms characteristically move from universal premises to more particular conclusion, arguments from example move from particular premises to equally particular conclusions; the argument moves part to part (cf. Rhet 1457b30ff).

Second, the argument concludes that the major term, "is evil" belongs to the minor term "war between the Athenians and Thebans" by means of a similar term, "the war between the Thebans and the Phocians." It is only insofar as the two wars are like one another that the argument has force. In Aristotle's example, the two wars are like one another by means of what he calls the middle term, "a war between neighbors." Thus, the total force of the argument comes in an unspoken premise that a war between neighbors is evil. This premise is the conclusion of a truncated induction as well as the major premise of a syllogism:

Induction:

1) Thebans vs. Phocians - is evil
   Thebans vs. Phocians - is a war between neighbors,
   Therefore, a war between neighbors - is evil.

Syllogism:

2) A war between neighbors - is evil
   Athenians vs. Thebans - is a war between neighbors
   Athenians vs. Thebans - is evil.

The argument from example combines a cutoff induction with a syllogism. Unlike induction, this kind of argument does not gather a large or complete enumeration of particulars to conclude a universal, but rather uses a single or small enumeration of particulars ultimately to conclude another particular. The single particular does not strictly speaking allow one to conclude that war between neighbors is always bad. It

relies on a similarity between minor terms in the induction and syllogism. The more alike the two terms, the more persuasive the argument.

What is the structure of Aristotle's argument from example to show that sophistical arguments exist?

Induction:

1) In other things – some of them are what they seem to be, but others seem to be, but are not.
   In other things – this happens through some likeness between what is what it seems to be and what is not what it seems to be.
   Wherever there is such a likeness – some things are what they seem be, but others seem to be, but are not.

Syllogism:

2) Where there is such a likeness - some things are what they seem to be, but others seem to be, but are not.
   In arguments - there is such likeness.
   Therefore, in arguments - some are what they seem to be, but others seem to be, but are not.

In the *Gorgias,* Socrates also makes the observation that likeness is a cause of error (*Gorgias* 465c). The argument given by Aristotle has force insofar as the likeness that causes error in other things is similar to the likeness that is found between real and apparent argument. Apparent arguments exist insofar as there exists some likeness between them and genuine arguments that may deceive a person into mistaking one for the other.

Aristotle's examples of likeness are all taken on the sensible level. Heraclitus said that "nature loves to hide" (DK B123). On the sensible level, things may appear to be the

same while being different in nature. One may mistake salt for sugar but no one would mistake salt for pepper because the visible and tactile likeness between salt and sugar is lacking in salt and pepper. On a sensible or imaginable level, a syllogism and a fallacy may appear to be the same, yet one is a sound and trustworthy argument while the other carries little to no weight at all. Thus, Aristotle's account of sophistical refutations includes not only an explanation of how each fails to be a genuine refutation, but also how each appears to be a genuine refutation through its likeness to genuine refutation. The closer a falsehood is to the truth the more apt it is to deceive; I am more likely to convince someone that I am one inch rather than six inches taller than my true height. In equivocation, for example, there is the likeness of vocal sound in a word used with different meanings. The cause of the appearance of refutation is the identity of vocal sound and the cause of the defect is diversity of meanings. The etymology of 'mistake' suggests that when things bear a close likeness, we often fail to distinguish between them and as Aristotle says, "most people do not distinguish [τὸ διορίζειν γὰρ οὐκ ἔστι τῶν πολλῶν]" (NE 1172b3). Thus, we call intelligent people 'sharp' because of their ability to make sharp distinctions and thereby avoid error.

In regards to the discussion on natural beginnings, Aristotle's claim that he is making a natural beginning may also be based on the fact that he begins by showing that likeness is a cause of error. He argues in the *Physics* that it is natural to begin with the general before the particular (Phys 189b30-32). Cf. also Poet 1447a8-16. By beginning

with what is common to a subject matter, one can prevent unnecessary repetition. With the partial exception of the fallacy of 'begging the question,' all sophistical refutations deceive because they appear to be real refutations, either through their likeness to syllogisms or through their premises' likeness to endoxes. Perhaps then Aristotle's account of likeness as a universal cause of deception is the natural beginning of this subject matter. Likeness as a cause of deception is discussed more thoroughly in the Introduction I.II Subject Matter.

164b23. The Greek word λιθάργυρος (which I translated as Litharge) is a composition of two Greek words: λίθος meaning "stone" and ἄργυρος meaning "silver." Litharge is a naturally occurring silver-colored stone made from lead monoxide exposed to a current in the air. Cf. Onions I, 1973, p. 1223.

164b27-165a2. I have supplied argument for λόγος here as the genus of syllogism, although the word λόγος is not in the text. However, in the *Prior Analytics* (24b18-22), Aristotle uses λόγος when he defines syllogism as "an argument (λόγος) in which, when certain premises have been put down, something else, other than the premises laid down, follows by necessity by the premises being so," and then adds, "by, 'by the premises being so,' I mean that they happen through them, and by 'it happens through them,' that no extrinsic term is needed for the necessity to arise." Again, in the *Topics* (Top 100a25-27), Aristotle gives an identical definition to his definition in the *Prior*

Analytics. Cf. also a paraphrase of the definition SE 168a21-23. For further analysis of this definition, cf. Introduction, I.II, Subject Matter.

165a2-3. In Chapter 20 of the *Prior Analytics* II, Aristotle gives an almost identical definition of refutation (APr 66b11). He notes that a refutation may come about whether or not the interlocutor affirms or denies questions since syllogisms come about from both affirmative and negative premises. However, an interlocutor must concede at least one affirmative premise and one universal premise for a refutation to be possible because every valid syllogism has both an affirmative premise and a universal premise. As Dorion notes, the refutation as here defined applies equally well inside and outside the context of dialectical disputation (Dorion, 1995, p. 206). Cf. also SE 170a23ff. For further analysis of this definition, cf. Introduction, I.II, Subject Matter.

165a3-19. We have analyzed, at some length, Aristotle's argument for the existence of sophistical arguments. He observes that things appear to be other than they are through some likeness to something else. Since there is a likeness between genuine and counterfeit arguments, a listener may mistake the counterfeit for the genuine. Counterfeit arguments have an appearance likely to deceive an experienced listener.

To complete his argument, Aristotle devotes nearly the rest of this paragraph to illustrate the minor premise of the final part of the argument from example: there is a great likeness between genuine argument and counterfeit argument. However, earlier Aristotle indicated in passing that there is also a cause for deception in the hearer

himself, namely, his inexperience (SE 164a26-27), which makes him see the arguments as from afar, and prevents him from fully grasping the distinctions necessary to discern the counterfeit from the genuine. After claiming that there are several causes of this likeness in the arguments themselves, he then exemplifies these causes through the sophistical place derived from words, i.e., the fallacy of equivocation.

To manifest why words may be a fertile ground for producing apparent arguments, Aristotle argues that equivocation is necessary. We cannot use things themselves in conversation, and so instead we use language to signify things. Our words and more generally our language, however, do not have a one to one correspondence with the nature of things. For instance, the order in which we name things is often not the order in which they are. Again, there are many things that do not have names at all. More importantly, sometimes our speech and names are more similar than the things which they signify. Any instance of a likeness in language not translating over into the things themselves is fertile ground for the sophist's devices. Thus, Socrates describes the sophist Dionysodorus, as wanting to catch him "in his snares of words" *(Euthydemus* 295d). For a more thorough account of Aristotle's argument for the necessity of equivocation, cf. Appendix, I.IV, The Necessity of Equivocation.

165a5-6. The Greek word which I translate as place is τόπος. Obviously, the word's meaning here is not place in its original sense of physical place, but rather in the

extended sense used in Aristotle's logical treatise bearing its name: *Topics*. A place is a template—expressible in a most universal proposition usually composed of logical intentions—outlining potential endoxes that may be used to refute a given opinion. The subjects of the *Topics* are dialectical places and the subjects of the *Sophistical Refutations* are sophistical places. The notion of place is just as fundamental in the *Sophistical Refutations* as it is in the *Topics*; just as the *Topics* could aptly be renamed Genuine Refutations, so also the *Sophistical Refutations* could aptly be renamed Sophistical Topics. Despite the importance of the notion of place, Aristotle says very little about its nature. This scarcity has made 'place' difficult to understand, so difficult that some commentators—such as Tricot or Schreiber—avoid saying anything about it altogether. The notion of place is considered more thoroughly in Introduction, II.VIII, Fallacies as Places.

165a6. The Greek word πρᾶγματα (which I translate as things) should not be confused with any neuter plural adjective with a definite article. For πρᾶγματα here and elsewhere is opposed to λόγος and ὄνομα (cf. also SE 175a9, SE 168a29).

165a9-10. The Greek word ψῆφος (which I translate as "counting stone") was a small round pebble used by the Greeks to tally numbers both in the trade of goods and in voting.

165a18. This cause through which counterfeit syllogisms appear to be genuine is the fact that there can be likeness in speech but unlikeness in meaning.

165a19-37. Aristotle completes the chapter by first explaining why someone would use sophistical refutations and then outlining his treatise. Aristotle's sophist, like the sophists from Plato's *Euthydemus* (271c, 272a), are also characterized by being paid. Cf. also *Apology* 19e. Sophists, according to Aristotle, desire knowledge of sophistical refutations because the ability to appear to refute any interlocutor mirrors the wise man's ability to actually refute. Appearing wise establishes a reputation on the basis of which a sophist is paid for teaching. Thesophist has both the ability to produce sophistical refutations and the desire to deceive (NE 1164a22-33, Meta 1004bl7-26, Rhet 1355b15-21, SE 171b27-29). For a further account of Aristotle's description of a sophist consult the Introduction, I.II, Subject Matter.

Albert the Great offers this final suggestion as to how Aristotle begins his treatise from the natural beginning: "We will begin, therefore, with the goal, which is first according to nature: for although a goal is the end as that to which the sophist leads, nevertheless it is first in his intention. What is first in intention however is first according to nature because it is the cause of all those things that are [ordered] to that end [*Incipiemus igitur a metis, quae primae sunt secundum naturam: quia quamvis meta sit ultimum sicut ad quod ducit sophista, tamen haec est prima in intentione ejusdem: primum autem in intentione est primum secundum naturam, quia ipsum est causa eorum omnium quae sunt ad finem illum*] (Albertus Magnus I, 1890, tr. 1 c. 2, p. 527ba). The practical intellect begins with its knowledge of its chief end and works backward to its more proximate

ends. By beginning the treatise with an explanation of why the sophist would use sophisms, Aristotle gives what is first in the mind of the sophist.

Chapter 2: Distinction of Arguments in Dialogue

165a38-39. In Chapter 2, Aristotle locates the arguments treated in the Sophistical Refutations as one of the four kinds of arguments *in dialogue* (τῶν ἐν τῷ διαλέγεσθαι λόγων). This division of arguments is often contrasted with the four kinds of syllogism (συλλογισμός) given in the first chapter of the *Topics* (100a25ff). Cf., for instance, Schreiber, 2003, pp. 1-2. It is fitting that Aristotle gives his list of arguments in dialogue as part of the *Sophistical Refutations* rather than in some other logical work because argument in dialogue is proper to the sophist precisely as sophist. The sophist does not carry on argument by himself. His aim in argument is to appear wise, and this aim does not include appearing wise to himself but to others. The sophist then needs some sort of audience, even if the only audience is his opponent.

One might object that because the *Topics'* purpose is to provide an art by which a dialectician will be able discern the best available means for refuting his opponent, the dialectician similarly requires an opponent and therefore a dialogue too. Herein is the telling difference: a dialectician will discern the available means to refute his opponent even if he never has the opportunity to do so. For the dialectician is ultimately concerned not with the sophistic goal of appearing wise to others but with knowing and delighting in the truth regardless of others.

165b1-3. Didactic argument here is not synonymous with demonstration because it assumes a dialogue between a teacher and student. In didactic arguments, a student must concede his opinions to his teacher, and to do so requires trust. Cf. Top 159a29-30. Yet Aristotle claims that the didactic argument proceeds from true and proper principles. He claims further that demonstrative art does not proceed by interrogation because demonstration is tied to one side of a contradiction; it must reason from what is true, first, and proper. Cf. SE 172a15-16. How then can the back and forth of conversation be involved? Perhaps this form of argument could be exemplified by Socrates' dialogue with the slave boy after it has become obvious that one cannot double a square by constructing a square on a length double the side of the original square. In the ensuing conversation, the slave boy makes clear that one can double the square by using the diagonal as the side merely through his answers to Socrates questions. The dialogue demonstrates a truth with the slave boy conceding merely his own opinions and yet he comes to know something he previously did not know through what is first and proper. The argument contains the back and forth of a dialogue, but it is didactic at the same time. Cf. *Meno* 83c3ff.

165b3-4. Aristotle defines a dialectical syllogism as "that which syllogizes from endoxes," in the *Topics.* Cf. Top 100a30. He defines endoxes (ἔνδοξοι) as "things which seem to be to all or to most or to the wise, and to all the latter or most or to the most knowing and well-reputed." Cf. Top 100b22-24. A dialectical syllogism does not give

demonstrative certainty and has no determined subject matter of discourse. Cf. SE 172a12-13 and 170a38-39. The dialectical syllogism is presented in the *Topics* as derived from the concessions of the answerer during dialectical disputation. Cf. SE 172a15-17, 171b5, 171b9-10, 172a21. That said, one can see by the definition of dialectic that it is useful outside of dialectical disputation. Such dialectical syllogisms can be found in Book One of the *Physics*, Book One of the *De Anima,* and in Book Three of the *Metaphysics*. For a more thorough discussion of dialectic and the meaning and function of endoxes, see Introduction II.VI What is Aristotelian Dialectic.

165b4-6. While Aristotle makes testing (πειραστικὸς) argument a different kind (γένη) from dialectical argument, later he claims that the testing art is part of dialectic. Cf. SE 169b25-26 and 171b4-5. This apparent contradiction leads Dorion to claim that testing argument is more a species of the dialectical argument, than an argument of an entirely different nature. Cf. Dorion n. 18, p. 214. The contradiction, however, is a superficial one. The same art may use different kinds of arguments such as in the cases where dialectic uses both induction and syllogism, and rhetoric uses both enthymemes and arguments from example. A testing (πειραστικὸς) argument and a dialectical argument may be different kinds of arguments while the testing art (πειραστική) may be part of the dialectical art (διαλεκτική). As discussed in the introduction, Aristotle clearly considers it to be the function of the same art to discern real and apparent means of persuasion. For, he claims that the rhetorician enquires into real and apparent

persuasion and the dialectician enquires into real and apparent syllogism. Cf. Rhet 1355b13ff. By Dorion's reasoning, a single art could only consider one of the two. Thus, Aristotle's claim in the present text is not inconsistent. The testing argument may be a different kind of argument than the dialectical argument, but the dialectical art may inquire into both, just as it inquires into sophistical refutations also.

165b6-7. Perhaps the reference is to the *Topics* 159a25ff. However, as Dorion points out, the text from the *Topics* seems unsatisfactory because it is mostly from the perspective of the answerer while the text here appears to refer to a mode of questioning, and consequently assumes the questioner's perspective. Cf. Dorion pp. 214-15. Poste, therefore, takes the reference to be evidence of a lost text of Aristotle. Cf. Poste p. 103. Aristotle will have more to say about this sort of argument at SE 172a21-36.

165a7. A contentious (ἐριστικός) disputant is not synonymous with a sophistic (σοφιστικός) disputant, although both men use the same arguments, apparent refutations. A disputant is contentious if he cheats out of love for victory itself; he is a strife-lover (φίλερις). A disputant is a sophist if he cheats to gain a reputation of being wise so that he can make money. Cf. SE 171b22-34.

165b7-8. In this passage, Aristotle gives only two alternatives for a contentious argument: 1) if it is a real syllogism but the premises are not genuinely endoxic or 2) if the syllogism is merely apparent. One could divide this second option into two as Aristotle does at Top. 100b23-27 where he states that the same argument may be both

apparently but not really syllogistic and have premises that appear but are not genuine endoxes or an argument may have genuine endoxes but only appear to be syllogistic. Cf. Top, 100b23-101a25. Some commentators think that Aristotle gives another kind of category of sophistical refutation that encompasses arguments that appear to be germane to the subject at hand but are not. Cf. Dorion p. 215 and Foster, p. 47. Cf. SE 169b20-23; 171b8-12 and notes *ad loc* for an account of my disagreement with this interpretation.

One may question how it is possible for a premise to appear to be an endox without actually being one. How can something seem to be generally accepted, when it is not? Aristotle answers, "[N]othing of what is called endox has its likelihood entirely on the surface, as the principles of contentious arguments happen to." Cf. Top 100b27-28. For example, "speaking of the silent is possible" appears to be an endox. Cf. SE 166a12-14. However, this position is only an endox if one takes "of the silent" as an objective and not a possessive genitive. It is possible to speak about silent things but silent things cannot speak. The *Sophistical Refutations* unfolds the places where the sophist looks for premises that will appear to be endoxic while they are not actually endoxic, and that can be used in multiple disciplines. For another example from the *Sophistical Refutations* cf. SE 178b34-38 and note *ad loc*.

On another matter, when Pacius gives the subject matter of the *Sophistical Refutations,* he divides the sophistical syllogism from the dialectical and didactic

syllogism, *Quicquid concluditur aut est necessario verum, aut probabile, aut falsum.* [Whatever is concluded is either necessarily true, or probable, or false] Cf. Pacius, p. 479. A demonstration would be conclusive of the true, the dialectical syllogism of the probable, and the sophistical syllogism of the false. A dialectical syllogism, however, may contain false premises and a false conclusion because endoxic premises are sometimes false. Clearly, Pacius means that the conclusion of a sophistical syllogism is always false. His division reveals a certain confusion regarding sophistical reasoning. While on face value, this seems to be a reasonable division of the arguments, the conclusion of sophistical refutation is not necessarily false. In fact, the premises are not necessarily false either. Consider the following fallacy:

1) If an argument is a demonstration, then the conclusion is true.
   The conclusion of the Pythagorean Theorem is true.
   Therefore, the Pythagorean Theorem is a demonstration.

In this example, both the premises and the conclusion are true. However, the conclusion does not *follow* necessarily from the premises, although it appears to. The argument commits the fallacy of assuming the consequent. Pacius' neat division of the three types of syllogism according to the respective conclusions' truth, probability and falsity is incorrect. For the conclusion of the dialectical syllogism may be false, while the conclusion of a sophistical syllogism may be true.

On the other hand, it is accurate to say that the subject of the *Sophistical Refutations* is false syllogism as long as false is understood in the sense in which

Aristotle calls *things* false which appear to be other than they are. Cf. Meta 1024b21ff. A sophistical refutation is a false syllogism in the way that false teeth or false money are false. Sophistical refutations may not be accurately called false in the sense that their premises and the conclusion do not reflect reality.

Chapter 3: The Aims of the Sophist

165b12-16. Aristotle has already characterized the aim of the sophist as to appear wise. Cf. SE 165a20ff. Here, however, he gives five aims. How are the aims related? The desire to appear wise is the common aim of every sophist. A sophist appears wise by overcoming any interlocutor, and to do so he aims to cause his interlocutor to speak so as to reflect some intellectual corruption. Any individual sophist may have a number of different particular aims to bring about this appearance. Chapter 3 lays out five corruptions of the intellect that the sophist aims to produce the appearance of in his opponent. These are the five proximate aims of the sophist in any discussion. Which particular aim the sophist chooses is determined by the context of the discussion. The aims are ordered from most desirable to least desirable because the corresponding intellectual corruption are ordered from most to least severe.

Aristotle will discuss sophistical refutation from the perspective of the sophist in Chapters 4-11 and sophistical refutation from the perspective of the answerer in Chapters 19-30. He discusses the aims of falsehood and paradox in Chapter 12,

of solecism from a sophist's perspective in Chapter 14 and from an answerer's perspective in Chapter 32.

165b15. The Greek word ἀδολεσχῆσαι (which I translate as babble) does not have an exact equivalent in English. The fifth aim of the sophist is to make his interlocutor repeat the same exact words over and over. It is not to have him make the same point over and over or to simply utter nonsense. Cf. examples at SE 173a34-b11. Aristotle discusses babbling from a sophist's perspective in Chapter 13 and from an answerer's perspective in Chapter 31.

165b19. The second aim is traditionally understood to be forcing the adversary to say something manifestly false. Pacius has a clear paraphrase of Aristotle's second aim in line with this interpretation: *Secunda scopus est falsitas, id est, ut cogetur quis fateri quod est manifeste falsum* [the second aim is falsity, that is, that someone is forced to admit that which is manifestly false]. Cf. Pacius, I Soph Elench., tr. 2, c. 3, a. 2, p. 482a. While Pacius' paraphrase is interpretive, it is also reasonable. The only way to show that a statement is false when it is not clearly false is by using contradiction, but the first and the second aims must be distinct. If the sophist does not then succeed in producing the contradiction of what his interlocutor conceded at the beginning, he will content himself with forcing him to state something manifestly false—not any false statement, but a manifestly false statement. As Albert the Great points out, *non sequitur falsum nisi ex falso* [the false does not follow except from the false] (Albertus Magnus I, 1890, tr. 1, c. 5 p.

533b). If the sophist can lead his opponent into saying something manifestly false, then he simultaneously discredits the premises leading to that false conclusion because it is impossible for a false conclusion to follow from true premises. However, the first and the second aims of the sophist remain distinct. For to lead a person into contradiction does not mean that either side of the contradiction is manifestly false, but that both sides of the contradiction cannot be true. Moreover, a refutation requires that the interlocutor explicitly accepts the exact contradiction of the refutation's conclusion whereas the interlocutor need not accept the contradiction of an argument's conclusion. The second aim reveals that the answerer's opinions are false, but not that they are inconsistent.

165b19-20. παράδοξος (which I translate as paradox) is an antonym to endox (ἔνδοξος). Aristotle also uses the word as a synonym to ἄδοξος (which I translate a disreputable opinion). Cf. SE 172b10-11 where Aristotle refers to this third aim by using ἄδοξος as opposed to παράδοξος. Chapter 12 unfolds the places that the sophist uses to lead his interlocutor into stating a paradox.

What is manifestly false and what is a paradox are not the same. Aristotle's meaning of paradox is what is opposed to common opinion, either of all men, or most, or the wise, or the wisest of the wise, i.e., endoxes. However, some endoxes are false such as the opinion that time is uniform or—to use an example more pertinent to Aristotle—that democracy is the best form of government. Opinions that are opposed to

false endoxes are paradoxes, but they are not manifestly false. Some paradoxes can be true; all false statements are false.

Chapter 4: Apparent Refutations from Speech

165b23-27. Aristotle has explained the five aims of sophists. Of the five aims, the ability to produce sophistical refutations is the most desired, and so Aristotle first proceeds to consider the various ways of doing so.

The primary division of Aristotle's thirteen sophistical refutations is into two: those from speech (παρὰ τὴν λέξιν) and those outside of speech (ἔξω τῆς λέξεως). Unfortunately, Aristotle provides no explanation of the division other than the names of the two parts and the fallacies that fall under them. Fallacies from speech play on some ambiguity, genuine or apparent, in speech. How are we to understand the purely negative characterization of one class of fallacies as outside of speech? Various interpretations can be found even in a single commentator. Michael of Ephesus, for instance, first characterizes the fallacies outside of speech as those from thought: τοῦ δὲ ἐλέγχου μέρη εἰσὶ δεκατρία· ἓξ μὲν τὰ "παρὰ τὴν λέξιν," ἑπτὰ δὲ τὰ παρὰ τὴν διάνοιαν, οὓς ὁ Ἀριστοτέλης "ἔξω τῆς λέξεως" καλεῖ. [There are thirteen parts of refutation; those "from speech" are six, but those from thought—which Aristotle calls "outside of speech"—are seven] (Michael of Ephesus, 1898, p. 5). Later, however, Michael of Ephesus (1898, pp. 20, 37) equates the ways "outside of speech" with those concerning things (περὶ πράγματα).

It is reasonable to suppose that if a fallacy is not derived from speech, then it must be either from thought or from things. A fallacy outside of speech is from things, however, and not from thoughts. For in some sense, every fallacy is related to thought because every fallacy is a way of making an error in thought. Accordingly, it would be confusing to categorize only a portion of sophistical refutations as from thought. Clearly, one false thought can be the source of another false thought; for—to paraphrase Aristotle—a small mistake in the beginning can lead to a great mistake in the end (DeCa 271b8ff). However, one error in thought being derived from another error in thought cannot go on infinitely. At some point, the source of an error in thought cannot be another thought. It makes more sense, then, to divide the fallacies according to the sources of error other than thoughts. Clearly, ambiguity in language can be a source of error. And what else is there besides thoughts and speech? Things.

Moreover, Aristotle argues that fallacies cannot be divided into those from names and those from thought in Chapter 10 (SE 170b12-171b2). Again, it is the nature of a fallacy to appear to be a refutation while failing to be a genuine refutation. Thus, all deception resulting from sophistical refutations comes about due to some likeness (SE 164a26). It is clear that all of the fallacies from speech are based on a likeness in speech; the answerer fails to notice that different expressions signify more than one thing on account of the likeness of those expressions. Thus, the source of some fallacies is a likeness in speech as such. One can gather, then, that the deception all of the fallacies

outside of speech is due to a likeness that is not in the speech itself, but due to some other likeness. Examples of these others likenesses are the likeness between what is through itself and what is through an accident in the fallacy of the accident or the likeness between what is so simply and what is so in a certain respect in the fallacy of what is said in some respect. These are likenesses in reality. The source of fallacies outside of speech then is a likeness in *things* as such.

Additionally, this division is in harmony with the dialectician's tools; the division of fallacies into those derived from the likeness of speech and those derived from likeness in things corresponds to the distinction between the second and third tools of dialectic (cf. Top 105a20-34). The second tool is the ability to distinguish different senses of vocal expression (Top 106a1-107b37). The third tool is the ability to discover differences in things (Top 107b38-108a6).

The Medievals generally considered the division of fallacies according to speech and according to things. The author of the *De Fallaciis* explains that this division is based on some fallacies arising due to the unity of expression and some arising due to apparent unity in things: *Hoc autem contingit dupliciter. Uno quidem modo ex parte vocis, quando propter unitatem vocis creditur esse unitas rei per vocem significatae; sicut illa quae per nomen canis significantur, unum esse videntur, quia hoc nomen canis est unum. Alio modo ex parte rei: ex eo scilicet quod aliquae res quae aliquo modo conveniunt simpliciter unum esse videntur, sicut supra dictum est de subiecto et accidente* [This happens, however, in two

ways. In one way, indeed, on account of the expression, when on account of the unity of expression it is believed that there is a unity of the thing signified through an expression; as those things which are signified through name dog appear to be one since this name dog is one. Another mode is on account of the thing. Namely, because some things which come together in some way seem to be one simply; as was said above concerning subject and accident.] ((ps) Aquinas, 1976, c. 4). *Modi autem arguendi per quos arguitur ad redargutionis metam ducendo, sunt duo, scilicet secundum apparentiam in diction ... et alii modi sunt extra dictionem secundum rem accepti* [However, there are two modes of arguing by which one argues in leading to the goal of refutation, namely on account of appearance in speech … and other modes have been accepted outside of speech on account of the thing] (Albertus Magnus I, 1890, tr. 1, c. 6, p. 535a). [*I]n aliquibus dubitatio fit ex parte rei, in aliquibus ex parte verborum et nominum.* [In some cases, error arises on account of the thing, in other cases on account of the words or names.] (Aquinas, 1953b, lect. 1, n. 238). This also appears to be Allan Bäck's position (2015, p. 143 and p. 146).

One must note, however, that fallacies outside of speech often involve ambiguous language, but that ambiguous language is not the source of the fallacy as such. Albert the Great offers the following helpful observations:

> *[P]raenotandum est quod penes causam apparentiae diversae distinguuntur fallaciae, et non penes causam non existendi: quia eaedem causae non existendi possunt esse in diversis fallaciis, ut dicit Aristoteles, et non potest una causa apparentiae in diversis fallaciis…. In omnibus enim fallaciis et in diction et extra dictionem oportet sermonibus*

> *uti: sed ille sermo in fallaciis extra dictionem sumitur sermo prout subjacet rei, in fallaciis in diction sumitur sermo prout res subjacet sermoni: et ideo principium deceptionis est in sermone in fallaciis in dictione, in fallaciis autem extra dictionem sumitur prout est in re et refertur ad sermonem* [it must be noted that diverse fallacies are distinguished within the *causam apparentiae*, and not with the *causam of non existendi*: since the same causes of non-existence are able to be in diverse fallacies, as Aristotle says, and there cannot be one cause of appearance in diverse fallacies…. For in all fallacies both in speech and outside of speech it is necessary to use language, but the language in fallacies outside of speech is the language as subject to the thing, in fallacies from speech the language is as thing subject to the language: and so, the principle of deception is in the language in fallacies from speech, in fallacies outside of speech, however, it is as it is in the thing and related to the speech] (Albertus Magnus I, 1890, tr. 3, c. 6, p. 568a).

The above observations by Albert explain a tendency to reduce fallacies outside of speech to fallacies from speech. Cf. for instance, Poste, 1866, p. 156-157 or Bueno, 1988, p. 12. Perhaps this explains in part why Wittgenstein (1976, pp. 109, 132, 133) thought all error could be reduced to imperfection in speech. If we cannot distinguish two things in reality, then their supposed identity will carry over into the way we speak about them. Thus, fallacies from the accident, for example, involve the same phrase signifying two different things over the course of a syllogism. The reason why a fallacy from the accident is not a fallacy inside of speech is that the ultimate source of the error is not from speech but from things. This explains why Aristotle gives similar examples of fallacies inside of speech and outside of speech. It may even be permissible for one example to be categorized as two different kinds of fallacy. For nothing prevents the same argument from committing multiple fallacies (Albertus Magnus I, 1890, tr. 3, c. 7, p. 570). Cf. also SE 179b17-26 and note *ad loc*. Aristotle thinks that Mellisus' argument,

for instance, commits two fallacies: it commits the fallacy of equivocation which is a fallacy inside of speech and it commits the fallacy of assuming the consequent which is a fallacy outside of speech (cf. Phys 186a6ff). As D. Botting (2012c, p. 213) puts it, "Each (type of) fallacy has a unique solution (namely, the opposite of whatever causes the fallacy), but each fallacious argument does not." Cf. also SE 179a11ff.

165b27. I translate the Greek σχῆμα λέξεως as 'figure of diction' as opposed to 'figure of speech' to avoid confusing this fallacy with the use of rhetorical devices such as irony or metaphor. One could accurately get at Aristotle's meaning with the translation 'form of expression.' I reject this admittedly less awkward translation in favor of 'figure of diction' because of my translation's etymological connection with the common Latin rendering of the fallacy *figurae dictionis.*

165b27-30. Aristotle—after having enunciated the six sophisms inside of speech—states cryptically that one can prove his division is exhaustive either by induction or by syllogism. In fact, Aristotle does not form such a syllogism or induction, but he does say it is based on the fact that "we can fail to signify the same thing with the same names and speeches in so many ways." This claim by Aristotle reveals how he is dividing his fallacies from one another. The fallacies are divided from one another based on the kind of likeness in speech by which reason mistakes the apparent for the real.

Various commentators have tried to bring out what exactly the syllogism to which Aristotle refers might be. I find Sylvester Maurus's interpretation (1885, c. 3, a. 2,

n. 4, p. 571b) the most explanatory of Aristotle's claim. *Probatur inductione et syllogismo; Inductione quidem, quia nulla potest afferri fallacia dictionis, quae non reducatur ad aliquam ex his; syllogismo vero, quia tot sunt fallaciae dictionis, quot sunt modi per quos iisdem nominibus et eadem oratione possumus plura significare; sed tales modi sunt sex; ergo, etc. - Probatur minor; vel enim plura significamus, quia aliquod nomen est aequivocum, et est aequivocatio; vel quia tota oratio plura significat, et est amphibologia; vel quia quasdam voces aliud significant compositae, aliud divisae, et sunt fallaciae compositionis ac divisionis; vel quia eaedem voces aliud significant cum accentu, aliud sine accentu, et est fallacia accentus; vel demum quia eadem figura dictionis significat diversa, et est fallacia figurae dictionis* [It is proved with induction and syllogism. There is induction, in fact, because no one can offer a fallacy from speech, which is not reduced to one or other of these things; there is syllogism, however, because there are as many fallacies from speech as there are modes through which we can signify many things with the same name and speech. But such modes are six; therefore, etc., —the minor premise is proved: for either we signify many things because some name is equivocal, and it is equivocation; or because the entire address signifies many things, and it is amphiboly; or because certain words signify one thing as composed and another thing as divided, and these are the fallacies of composition and division; or because the same words signify one thing with an accent and another thing without an accent, and this is the fallacy of the accent; or finally because the same figure of diction signifies different things and this is the fallacy of figure of diction].

Sylvester's interpretation of the syllogism that Aristotle claims manifests that the exhaustiveness of his division can be put in the following way.

1) Every twofold meaning is from these six places.
   Every fallacy from speech is from twofold meaning.
   Therefore, every fallacy from speech is from these six places.

While Sylvester's syllogism is not unreasonable, it seems to require the major premise to be justified by induction. How can we know this induction is complete? In the commentary tradition, one interpretation is prevalent: language deceives by actually signifying more than one thing or by potentially signifying more than one thing, or by seeming to signify more than one thing. This influential interpretation was first espoused by Galen in his *De Captionibus* (1977, c. 3, p. 6). The following chart represents the necessary divisions underlying Galen's argument that the six fallacies from speech exhaust all twofold meaning in speech.

Twofold Meaning τὸ διττόν	In a name (ἐν ὀνόματι)	In a phrase (ἐν λόγῳ)
Actual ἐνεργείᾳ	Equivocation ὁμωνυμία	Amphiboly ἀμφιβολία
Potential δυνάμει	Accent προσῳδία	Composition and Division σύνθεσις καὶ διαίρεσις
Imagined φαντασίᾳ	Figure of Diction σχῆμα λέξεως	Figure of Diction σχῆμα λέξεως

For Aristotle language deceives by signifying more than one thing or by seeming to signify something other than what they signify. Galen crisscrosses the distinction

between the simple name and complex speech with the distinction between actual, potential, and imagined multiplicity. Clearly, language is either simple, as in a simple word, or complex, as a speech or phrase. One name or speech may have two meanings actually or potentially. That seems to be complete. However, with figure of diction, a name or speech has one meaning, but it seems or is imagined to have another. 'To be seen' is not an instance of undergoing in reality, but it appears to because it is grammatically passive (cf. SE 166b10-19 and notes *ad loc*).

We find this same division of fallacies inside of speech in Michael of Ephesus (1898, p. 22), who claims, πᾶν δὲ διττὸν ἐν ὀνόματι καὶ λόγῳ ἢ δυνάμει ἢ ἐνεργείᾳ ἢ φαντασίᾳ [Every twofold meaning in name or in speech is either potential or actual or imagined]. The author of the *De Fallaciis* makes a similar claim ((ps) Aquinas, 1976, c. 5), *Ex parte autem vocis est principium motivum sive causa apparentiae ex eo quod una vox multa significat: quod contingit per multiplicationem vocum. Est autem multiplex triplex: scilicet actuale, potentiale, et phantasticum* [The moving principle or cause of appearance is on the part of the voice from the fact that one word signifies in many ways: this happens through the multiplication of voices. There are however three ways of multiplicity: namely, actual, potential, and imaginative]. Even Albert the Great seems to follow Galen's interpretation. Cf. Albertus Magnus I, 1890, tr. 2, c. 1, p 537a.

Galen's claim is that every multiplicity in meaning is either actual, potential or imaginary, and every actual, potential or imaginary multiplicity corresponds to one of

the six fallacies from speech. Taking this as our base principle we now have a syllogism to justify the major premise of Sylvester's syllogism:

2) Every twofold meaning is either actual, potential, or imagined.
   Every actual, potential, or imagined twofold meaning is from these six places.
   Therefore, every twofold meaning is from these six places.

Obviously, it is not perfectly evident that this is what Aristotle had in mind when he alluded to there being a syllogism to show that his division was complete. Nonetheless, the repetition of this interpretation of Aristotle speaks to the persuasive force of Galen's division. His division appears complete, and his claim helps identify what is proper to each fallacy. However, this cannot be the exact division that Aristotle used because he divides the fallacies from speech into two groups: those that are twofold and those in which the speech or name are different based on whether or not the repeated words or phrases are actually the same. Cf. SE 168a24ff and note *ad loc*. The fallacies of composition and division are not based on twofold speech because the speech is different when it is composed and when it is divided. The fallacy of the figure of diction is not based on twofold speech because—although there is one speech—it does not have one of the apparent meanings.

However, Galen's interpretation is correct insofar as it claims that in the fallacy of figure of diction, the twofold meaning is only imagined; the word or phrase *never* has one of the imagined meanings. The fallacy is still twofold in the sense that there is one word or phrase that appears to have two meanings. The fallacy is distinguished from

those of amphiboly and equivocation because their phrases or words *can* have both meanings even if the questioner takes the speech for a different meaning than the answerer intended. Cf. Schreiber, 2003, p. 89. The fallacy of the figure of diction is distinguished from the fallacies which are not based on the twofold because, in those fallacies, the phrases or words are not the same. These qualifications to Galen's understanding are reflected in the revised chart below.

Twofold Meaning τὸ διττόν	In a name (ἐν ὀνόματι)	In a phrase (ἐν λόγῳ)
Actual Twofold ἐνεργείᾳ	Equivocation ὁμωνυμία	Amphiboly ἀμφιβολία
Imagined Twofold (The words or phrases are the same, but the twofold meaning is only imagined.)	Figure of Diction σχῆμα λέξεως	Figure of Diction σχῆμα λέξεως
False Twofold (The words or phrases is not actually the same)	Accent προςῳδία	Composition and Division σύνθεσις καὶ διαίρεσις

165b28. In this difficult passage, I translate καὶ as especially. The "especially because" clause is explaining the introduction of syllogism; it is more parenthetical than the parentheses "if we should take up another way." For the use of καὶ as a responsive adverb cf. Denniston, 1950, p. 293ff.

165b30-166a6. The fallacy of equivocation is a particularly important fallacy for the sophist (cf. SE 175a5-10, 165a4-5, 182b22ff, Rhet 1404b37-39). For a thorough explication of this fallacy and Aristotle's examples, cf. Appendix I.V What is the Fallacy of

Equivocation. Most of Chapter 4 consists of Aristotle's elucidation of each fallacy inside of speech through exemplification.

Obviously, examples of fallacies from speech often do not apply in translation. Sometimes the English cannot express the ambiguity at all. Other times the English can reproduce the ambiguity, but rather awkwardly. For the sake of clarity, I have chosen to put Aristotle's examples of the fallacies in italics while attempting to clarifying the more difficult examples in my commentary or appendices. When Aristotle references particular phrases or words from his examples, I have placed these phrases or words in quotes.

165b34. Here, μανθάνειν is a Greek word that can mean either to understand or to learn. The reader may take the sentence as ambiguous meaning either that those who are literate already understand what is taught by the teacher or that those who are literate learn what is taught by the teacher.

165b35. The Greek δέοντά (which I translate as "what needs to be") may mean things which ought to be. Aristotle claims in the *Topics* (110b10) that the Greek word δέον can mean either what is expedient (τὸ συμφέρον) or what is noble (τὸ καλὸν).

166a6. What distinguishes amphiboly from equivocation? Aristotle claims that both equivocation and amphiboly are from the twofold (SE 168a23ff and note *ad loc*). In equivocation, however, it is a name (ὀνόμα) that means several things, but in amphiboly, it is a discourse (λόγος) that means several things. (Ps) Aquinas (1976, c. 7)

says that *Sicut autem aequivocatio provenit ex eo quod dictio penitus eadem plura significat, sic amphibologia ex eo quod una oratio penitus eadem plura significat* [However, just as equivocation results from the fact that the name—while remaining the same—signifies many things so amphiboly results from the fact that one speech—while remaining the same—signifies many things].

166b6-7. The Greek grammar is ambiguous as to whether it signifies "wishing the enemies to capture me," or "wishing me to capture the enemies." Here the sophist takes advantage of the ambiguity in the Ancient Greek accusative infinitive construction. In all of Aristotle's examples of amphiboly, the ambiguity is related to grammatical construction. Amphiboly is due to diversity in the construction where one term can serve two different functions in a statement. The ambiguity is not the result of a term having two meanings, but from a term's potential to serve two different functions in the phrase. For this reason, the ambiguity can only result in a complex speech where different terms bear some relation to one another. It should also be noted that the Greek word ἀμφιβολία is sometimes used by Aristotle with a nontechnical meaning to refer to the ambiguity of a word (cf. SE I75b29ff, Poet 146Ia25-26; Galen, 1977, p. 117; and Kirwan, 1979, p. 41).

166b7-12. In the first example, the Greek grammar is ambiguous as to whether it signifies "Does one know that which one knows?" or "Does that which one knows know." The same applies to the next two examples.

166b12-14. It is possible that example is taken from Plato (*Euthydemus* 300b). Suppose the answerer has taken up the position that speaking of the silent (or speechless) is impossible. For no silent person speaks insofar as he is silent. The sophist may then try to secure the following premises

1) Speaking of rocks is possible
   Every rock is silent
   Therefore, speaking of the silent is possible.

In this sophism, the conclusion does actually follow. However, the conclusion only appears to contradict the original position of the answerer.

One should note that Aristotle's examples in the *Sophistical Refutations* are generally more playful than philosophically pernicious. Aristotle probably chose simple examples to manifest that they are in fact fallacious since such examples obviously do not follow. One downside to this approach is that readers may not consider the fallacies as truly dangerous. One serious example of the fallacy of amphiboly is the following:

1) Truth requires that the way we know things be the way things are
   The way we know things is as universal
   Therefore, truth requires that what we know exists universally

The phrase, "the way we know things" is ambiguous. The phrase may mean either A) the way we understand things to exist or B) our manner of knowing them. The first premise is true with the phrase bearing the A) meaning, but the second premise is true with the phrase bearing the B) meaning.

166a14-21. Aristotle distinguishes what he calls three ways or modes to produce equivocation of amphiboly. Since there is no example provided to instantiate the second way (τρόπος), determining how to distinguish the first two ways is difficult. The first way is from speaking properly (κυρίως) and the second way is from being accustomed (ἔθω) to speak in a certain manner. Aristotle could mean the second way of refutation involves words and phrases that are not actually ambiguous, but that are in a sense when they are used metaphorically. The second way, then, would not involve equivocation in the strict sense of the categories where the word properly has more than one meaning, but when we are accustomed (ἔθω) to speak metaphorically (cf. Poet 1457b1-6; Schreiber 2003, p. 182-183). One might say, "I am accustomed to calling my wife honey," or "I am accustomed to calling my neighbor a pig." To see Aristotle's understanding of metaphor, consult Appendix I.II Two Kinds of Name.

One might object that it is not possible to use the confusion of a metaphorical intention and a word's real meaning as grounds for a fallacy. For who would confuse the real meaning of honey with the metaphorical intention when a man calls his wife honey? Yet, there are cases, particularly in theology, where the metaphorical intentions are confused with the real meanings of the word (cf. Aquinas, 1947, I, q. 3, art. 1, obj., 1-3).

This third way in which something can be said in many ways is a simple restatement of amphiboly where the syntactical function of a univocal word is ambiguous given the grammar of a statement or phrase. Cf. Schreiber, 2003, p. 185.

166a16. I take it that the Greek adverb κυρίως (which I translate as "properly") signifies that the speech or the word actually has several meanings. Cf. SE 180a1-2. The Greek noun ἀετὸς has several meanings including "eagle," "gable," and "bandage." The Greek noun κύων can mean "dog," "Cynic philosopher," or "Dog-star," i.e., the star Sirius.

166a23-32. When the ambiguous statement from which the apparent refutation comes about is true in a composed sense but false in a divided, it is the fallacy of composition. Luckily, the fallacy translations into English with relative ease. The fallacy's ambiguity upon which this fallacy depends can be exemplified with Mother Goose's nursery rhyme, "Twenty Nails:"

> Every lady in this land
> Has twenty nails, upon each hand
> Five, and twenty on hands and feet:
> All this is true without deceit.

The rhyme is full of various phrases that taken in composition are false but taken in division are true. For example, if "upon each hand" is taken in composition with "has twenty nails" then "Every lady in this land has twenty nails upon each hand" is false. However, if "upon each" is taken in division with "has twenty nails," then the

statement "Every lady in this land has twenty nails" is true. There are similar ambiguities in other parts of the rhyme.

Notice that the punctuation in the example nulls any real ambiguity in the rhyme. Proper pronunciation of this rhyme would reflect this punctuation.

166a26-27. Deleting καὶ μὴ γράφοντα γράφειν with Wallies.

166a33-38. When an ambiguous statement from which an apparent refutation comes about is true in a divided sense but false in a composed sense, the argument commits the fallacy of division. How can we distinguish the fallacies of composition and division from the fallacy of amphiboly? Both involve ambiguity that can only take place in a phrase or statement. Aristotle will say later that the fallacy of ambiguity involves phrases that are truly twofold where the fallacies of composition and division do not (SE 168a24ff). As is the case with the fallacy of accent, the meaning of a vocal sound depends on its pronunciation. In Aristotle's example: "God-like Achilles left a hundred fifty men," the meaning of the phrase is determined by whether or not there is a pause between "hundred" and "fifty." For Aristotle, pronouncing the words with or without the pause makes two different statements simply speaking just as changing the accent on the same letter can make two different words simply speaking. The overall point is that in fallacies of composition and division the ambiguity, or "twofoldness," that is played upon by the sophist is not truly there. One might say with Galen and others that it is only there potentially. With the fallacy of amphiboly, the ambiguity is truly there.

One famous example of this kind of fallacy results from the argument that God cannot have knowledge of future contingents (Aquinas, 1952, q. 2, art. 12, ad. 4; 1947, I, q. 14, art. 13, ad. 3.):

1) Everything known by God must necessarily be.
   No future contingent things must necessarily be.
   Therefore, no future contingent thing is known by God.

166b1-9. The fallacy of the accent is the use of two different words that differ only in their accentuation in an apparent syllogism as if they were the same word. This fallacy differs from the fallacy of equivocation in that the fallacy of equivocation uses the *same* word but with two different meanings whereas the fallacy of accent uses *different* words that share the same letters in the same order. The fact that the fallacy of equivocation is far more prevalent than the fallacy of accent is verification of Aristotle's claim that likeness is the cause of error. For the vocal sounds of two word differing merely by accentuation are similar, but the vocal sound of one word used with two different meanings is identical. Just as no one during conversation would confuse the word "re*c*ord" with "rec*o*rd" in English, no one during dialectical disputation would confuse two words with different accentuations but the same spelling in Greek. It does seem at least possible that someone may do so while reading because the words are identical on the page. The fallacy exists, but it *hardly* exists in most languages. Obviously, the danger posed by this fallacy would be increased in heavily accented languages such as Chinese.

Oesterle gives a happy example: "To incense a person is, presumably, to surround him with perfumed smoke. This may or may not incense him" (Oesterle, 1963, p. 255).

We often make a similar error in writing when we mix up words like accept and except or illusion and allusion. These are words that are similar or identical in sound but differ in spelling. Still, it is hard to see how one would deceptively form a sophistical refutation out of this error either.

As far as the *Sophistical Refutations* is concerned, the fallacy of accent is, for the most part, important for what it reveals about other fallacies—that the fallacies of composition and division are not derived from phrases that are actually the same (SE 168a25-34 and notes *ad loc*).

166b4-5. The Greek reads "τὸ μὲν οὖ καταπύθεται ὄμβρῳ" (Part of which rots in the rain) and is amended to read "τὸ μὲν οὐ καταπύθεται ὄμβρῳ" (It does not rot in the rain.) The difference lies solely in the οὐ being pronounced more sharply. I have replaced the Greek with an equivalent English example: "the invalid ought to be put aside."

166b7-8. In Greek, δίδομεν means "we grant," while διδόμεν is an alternate infinitive form of διδόναι. Thus, with the change in accent, the passage may read in the imperative, "grant him to attain what he prays for."

166b10-19. The fallacy of the figure of diction, or in Latin *figurae dictionis,* should not be confused with the so-called etymological fallacy which mistakes a word's etymology for

the word's meaning. For instance, people often confuse the etymology of philosophy with its meaning. First philosophy is not the first love of wisdom. Again, a centipede does not have a hundred legs. For a more pernicious example of what is called the etymological fallacy, cf. Aquinas, 1947, I, q .13, art. 2 ad. 2.

The fallacy of figure of diction results from imagining that words or phrases have a twofold meaning—although they do not—because of their likeness to words or phrases that have a different meaning (cf. Schreiber, 2003 p. 89). Thus, these fallacies play on the various uses of different case endings, prefixes, or use of phrases in speech. For example, when words are grammatically active, one might assume the signify active realities. Consider the following example,

1) Every *in-* prefix is a privative
   e.g., *in*capable, *in*articulate, *in*valid
   The word *in*flammable contains the *in-* prefix
   Therefore, the word inflammable contains a privative.

Who would have predicted that such a seemingly benign fallacy would pose a grave danger to the inexperienced WD-40 user?!

Hamblin finds this serious example from John Stewart Mill's *Utilitarianism* (1863, c. 4): "The only proof capable of being given that an object is visible, is that people actually see it. The only proof that a sound is audible, is that people hear it: and so of the other sources of our experience. In like manner, I apprehend, the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it." Hamblin (1970, p. 26) states, "to say that something is visible or audible, is to say that

people can see or hear it, whereas to say that something is desirable is to say that it is *worthy of* desire or, plainly, a good thing. Mill is misled by the termination '-able.'"

166b14. Perhaps Aristotle is making a reference to *Topics* (103b20ff).

166b20. All six fallacies from speech are alike formed by mixing up one real or apparent signification of a word or speech with another real or apparent signification of a word or speech. Thus, all six fallacies from speech involve language that can—at least in appearance—have multiple significations.

166b21-27. The last lines of Chapter 4 would be more fitting placed as the first lines of Chapter 5.

166b23. πρός τι is normally translated as in relation to or relative to. A more concrete and literal translation is "towards something" which I do not use on account of its eccentricity. It is the same phrase that Aristotle uses to denote his category that we call relative.

166b25. More literally τὸ ἑπόμενον (the consequent) could be translated "what follows."

Chapter 5: Apparent Refutations Outside of Speech

166b28-36. Chapter 5 takes up the fallacies outside of speech, the first of which is the fallacy of the accident. Among other things, the fallacy of the accident assumes that whatever is predicated of a predicate belong to its subject. Aristotle claims this is not the case. On face value, this claim seems to violate Aristotle's "said of all" principle made in

the *Categories* (1b10-17): "When one is predicated of another as of an underlying, whatever [things] are said of what is being predicated will also be said of what is underlying, as 'man' is predicated of this man, but 'animal' of man. Therefore, 'animal' will also be predicated of this man. For this man is both man and animal." However, the "said of all" principle assumes the strict sense of univocal for all predicates made at the beginning of the *Categories*. For more on this point, cf. Appendix II.V "Said of All" Principle.

166b30. The Greek word, which I translate as "happen accidentally," is συμβέβηκεν. It is a finite form of συμβεβηκὸς which is commonly translated as accident or coincident. The importance of this word in Aristotelian philosophy cannot be overstated.

166b37-167a20. The fallacy of what is said simply or in a certain respect is derived from mixing up what is said in some qualified way with what is said simply. In many instances, something can be true in some qualified way but not simply or vice versa. When my neighbor walks through my front door, he may cease to be outside, but he does not cease to be simply.

Famously, Aristotle holds that Meno's paradox is an example of the fallacy of what is simply and what is in some respect. In Plato's *Meno* (80 D-86), the character Meno argues that he and Socrates cannot look for what virtue is, since it is impossible to look for something if you do not know what it is. No one can inquire about that which he knows or about that which he does not know; for if he knows, there is no need for

inquiry; and if not, he will not be able to find it. No one can recognize what he does not know!

Aristotle claims that Meno's argument commits the fallacy of what is simply and what is in a certain respect (APr 71a24-b9). To know something in some way does not require that one know it simply, and one need only know it in some way in order to look for it. For example, I know the number of people in the room in some respect, namely as being some number and as being attached to the people I see in the room. Still, I do not know the number simply until I have counted. Meno's paradox commits the fallacy of simply and in some respect.

This particular example of the fallacy of what is simply and what is in a certain respect will help us see why this fallacy is not a fallacy inside of speech. For since we primarily come to know what we do not know through argument, we know the conclusion in some respect through knowing the premises. The conclusion must be known *potentially* in the premises if the conclusion is to come to be known simply. Aristotle says (Phys 195a18-19), αἱ ὑποθέσεις τοῦ συμπεράσματος ὡς τὸ ἐξ οὗ αἴτιά ἐστιν [suppositions are the cause of the conclusion in the sense of that from which]. The effect, however, preexists potentially in its cause from which. Thus, the conclusion, before it is demonstrated from first principles, is known potentially in the first principles. Meno's paradox plays on a failure to distinguish between what is known potentially and what is known actually.

Aristotle gives a similar solution to Anaxagoras' idea that everything has an infinite number of infinitely small parts of everything else. Anaxagoras thought that because things are generated from one another, they must previously have existed in one another simply. For nothing can be generated from nothing. Just as I cannot take money from out of my pocket unless there was money actually in my pocket, Anaxagoras thought that you could not get a chicken out of an egg unless the chicken was actually in the egg before. Aristotle's response to Anaxagoras is that generated things do not exist simply in what they were generated from, but that they exist in the material in some respect, namely potentially.

Both of these examples show us that the distinction between what is simply and what is in a certain respect is not a distinction of speech but a distinction in things. Clearly, a failure to distinguish between things will result in our speaking about them as if they are the same, although they are in fact different. However, the primary cause of the deception in the fallacy of what is simply and what is in a certain respect is a failure to make a distinction in things. Thus, Aristotle correctly categorizes this fallacy as outside of speech.

The Medievals often characterize the fallacy as what is so simply and what is so in some imperfect way. When something is in some respect, additions are usually made to qualify the sense in which it may be spoken about. One knows the conclusion of an argument in the premises in some imperfect way. The plant is in the seed in some

imperfect way. The Ethiopian is white in some imperfect way, and so on. Thus, the author of the *De Fallaciis* for instance, claims ((ps) Aquinas, 1976, c. 11), *secundum perfectum et imperfectum accipitur fallacia secundum quid et simpliciter* [the fallacy on account of what is in some respect and what is simply is taken on account of the perfect and the imperfect]. Cf. also Aquinas, 1953a, q. 1, art. 1, ad. 1. and q. 7 art. 1 ad. 1. The Medievals' language of 'imperfect' is in harmony with Aristotle's implication that what is said in part (ἐν μέρει) is opposed to what is said simply (SE 168b40). For the part stands to the whole as imperfect to perfect. The fallacy is based on a failure to distinguish in things what is so simply and what is so in some imperfect way.

167a1. This fallacy appears to be a paraphrase from an argument given by the Eleatic Stranger in Plato's *Sophist* (237a-241b).

167a5. The Greek πάρεγγυς τῆς λέξεως which I translate as "resemblance in speech" could be more literally translated as nearness in speech. Thus, Aristotle appears to be claiming that confusing being simply or in some respect is from a similarity in speech. Yet, the fallacy is considered as outside of speech. How can we account for this discrepancy? A little below, Aristotle will identify which instances of the distinction between what is simply and what is in a certain respect are deceptive. He says they are deceptive "whenever something is said in some respect, [and] what is simply might also seem to follow, and in all cases where it is not easy to perceive which of these is properly assigned" (SE 167a14-17). There will be "nearness in speech," however,

whether or not these suppositions apply, yet some examples are obviously not deceptive such as Aristotle's Ethiopian example. Thus, it is not the nearness of speech simply that is the source of this fallacy's apparent credibility. The similarity in language is a result of our inability to distinguish things.

167a12. Reading οἴοιτ' ἂν with Wallies (Ross, 1958, p. 197).

167a19. Reading without κατηγορεῖν with Wallies (Ross, 1958, p. 197).

167a20-35. In Chapter 6, Aristotle will reduce all of the fallacies outside of speech—including the fallacy from ignorance of refutation—to ignorance of refutation. How can Aristotle claim that the fallacy of ignorance of refutation is one kind of fallacy outside of speech and then later reduce all fallacies including fallacies from speech to ignorance of refutation? Perhaps the fallacy of ignorance of refutation is distinct from the more general ignorance of refutation to which Aristotle reduces all fallacies, including the present fallacy bearing the same name. (Ps) Aquinas says (1976, c. 14), *[q]uia vero in definitione elenchi ponitur contradictio, quasi differentia quae constituit speciem, ideo specialiter omissio eorum quae ad contradictionem requiruntur, ignorantiam elenchi constituit secundum quod est fallacia specialis* [since, however, contradiction is posited in the definition of refutation as the difference which constitutes the species, especially therefore, the omission of things that are required for contradiction constitute ignorance of refutation in the manner in which it is a specific fallacy]. Cf. also Albert's commentary (1890, I , tr. 3, c. 9, p. 573) where he says ignorance of refutation "is said in two ways" with the exact

same account as that of (ps) Thomas Aquinas. I suggest, with Albert the Great and the author of *De Fallaciis*, that this fallacy is not derived from the ignorance of any aspect of the entire definition of refutation but from ignorance of the proper mark of refutation, that is, contradiction. If an argument appears to contradict a proposition previously affirmed by the interlocutor—while not actually contradicting it—the argument commits the fallacy of ignorance of refutation.

Reading the specific fallacy of ignorance of refutation as distinct from the general ignorance of refutation has at least three virtues. First, it explains how Aristotle can reduce ignorance of refutation to ignorance of refutation (SE 168b17-21). How could Aristotle reduce something to itself? Second, it matches Aristotle's examples which include cases where there appears to be contradiction, but there is not. Aristotle does not include examples where arguments appear to follow, but do not. Third, it matches Aristotle's consideration of untying the fallacy in Chapter 26 where he advises the answerer to consider the conclusion of the sophistical refutation against the full definition of contradiction (SE 181a1-8). Aristotle does not advise looking to see if the argument follows.

Consider the following example: in Plato's dialogue *Protagoras* (339a-e), the sophist criticizes Socrates for admiring a poem of Simonides because the poem first says that it is difficult to become good while later the poem implies that it is not difficult to be good. A poem, Protagoras says, should not contradict itself. Yet the poem only

appears to be contradicting itself. In reality, there is no contradiction because to be and to become are not the same thing. It may be difficult to climb to the top of a mountain, but is not difficult to stand at its peak. Difficulty in becoming does not contradict a lack of difficulty in being. It is unclear how this fallacious argument could be placed into another fallacy besides ignorance of refutation. Any argument that falsely appears to contradict a previously granted proposition of an interlocutor commits the fallacy of ignorance of refutation.

This sophism relies on a legitimate syllogism for one particular conclusion, but the sophist draws another conclusion which only appears to follow. Obviously, the irrelevant conclusion—which is the genuine contradiction—must look like the actual conclusion which is an apparent contradiction; the apparent conclusion looks like the real conclusion because it differs from the real conclusion by seemingly insignificant details. As Carrie Swanson says (2017, p. 155), "its stated conclusion contradicts an answerer's thesis, the conclusion which actually follows from its premises does not." Swanson, Yet, the apparent conclusion is the genuine contradiction, and the actual conclusion is only the apparent contradiction. As a good lie is one with a lot of truth in it, so this fallacy is deceptive because the entire argument made by the sophist can be perfectly sound, or even demonstrative. What do we usually do when we think a conclusion is false? We examine the argument and look for problems. But with this particular sophistical trick, there are no problems with the argument itself! We will be

looking in exactly the wrong place, since the argument is fine—it is precisely the conclusion that is incorrect.

167a22. Omitting ἀλλὰ (ἄλλως in Ross) with Barnes and Dorion. The Greek word which I here translate as account is λόγος. Foster, Hasper and Barnes translate the word here as definition. This of course would not imply that there is a deficiency in the actual definition of refutation, but that some people do not fully understand what refutation entails.

167a23-27. Aristotle obviously benefited from engaging in dialectic at Plato's academy for twenty years. We can find this doctrine of the necessary elements of contradiction, albeit in nascent form, in the *Sophist* (230b).

167a24. συνωνύμος (which means univocal in the *Categories* 1a5) has its transliteral meaning in this passage. Cf. Rhet 1405a1 where Aristotle uses the same word with its transliteral meaning. While it may take the reader by surprise that Aristotle does not consider a contradiction genuine if both sides of the contradiction use truly synonymous terms to signify the same thing, he will clarify his meaning later (SE 168a28-33).

167a35. This last parenthetical remark appears to indicate his awareness that fallacies outside of speech often result in ambiguity inside of speech. As was noted above, if one fails to make a distinction between two things, such as what is through itself and what is according to accident, then he will speak about them in the exact same terms. What

places an argument among the fallacies outside of speech is that the ultimate cause of appearance of refutation is not a likeness in speech, but a likeness in things.

167a36-39. Perhaps by "all the ways" Aristotle is referring to the *Prior Analytics* where he discusses begging the question in an apparent demonstration. He states (APr 64b28-65a38, trans. Smith), "whenever someone tries to prove through itself that which is not familiar through itself, he then asks for the initial thing (begs the question)." Aristotle then outlines two ways in which someone can beg the question in an apparent demonstration: He can either assume what he wants to prove directly, or assume a premise that can be known only through the desired conclusion.

One famous example of this second form of begging the question is Playfair's Axiom used to "prove" Euclid's fifth postulate. Playfair's axiom states (1846, p. 29), "In a plane, given a line and a point not on it, at most one line parallel to the given line can be drawn through the point." Euclid's fifth postulate states (Heath, 1956, vol. I, p. 155), "If a straight line falling on two straight lines forming two interior angles on the same side make angles to less than two rights, then the two lines, if extended indefinitely, meet on that side on which the angles make angles less than two rights" [modified Heath translation]. Playfair's axiom first assumes there are such things as parallel lines, which is not self-evident because it can be proven from the first four postulates without the fifth. Second, and more to the point, the axiom assumes Euclid's fifth postulate when it says, "at most one line parallel." For it is manifest that all other lines must cut

the given line since they will incline to the given line on one side or the other, and this is to assume the fifth postulate. Thus, Playfair's proof for the fifth postulate assumes Playfair's Axiom which in turn assumes the fifth postulate (Augros, 1995, p. 75-80).

The fallacy of begging the question is often called the Cartesian Circle because the fallacy is often attributed to Descartes' proof of God's existence. Descartes argues that clear and distinct ideas are reliable because God is a non-deceiver. He later argues that God exists using premises that he states should not be doubted because they are clear and distinct ideas. For further analysis of Descartes' argument, see Loeb, 1992, pp. 200-235.

In strict scientific demonstration, one begs the question by assuming what is posterior by nature to prove what is prior by nature because the premises of demonstration must be prior by nature to the conclusion (APr 71b29ff). In begging the question, the begging may also take place in dialectical disputation. In this case, however, one does not necessarily syllogize from what is prior by nature to what is posterior by nature "in truth," but he syllogizes from what is prior according to opinion to what is posterior according to opinion (APo 65a36-37). In the *Topics* (162b34ff), Aristotle also lays out five methods of begging the question in dialectic. The methods will not be discussed here. For a thorough analysis of these methods, see Schreiber, 2003, pp. 101-104.

For the fallacy of begging the question, Aristotle gives an explanation of the "*causa apparentiae*," but he does not give an explanation of the "*causa non existentiae*," because it is clear that a syllogism which assumes the conclusion in the beginning does not follow. It is not so clear, however, how one could be fooled by such an argument.

I take it that this fallacy does not always deceive because of likeness but sometimes because of unlikeness. For one may overlook the assumption of a conclusion in a premise because the premise and the conclusion use different but synonymous words. In this situation, it is the unlikeness of language that deceives although at least part of what is signified is the same. One might argue that such examples are from speech. Clearly, however, if the argument does not use synonymous language but merely is deceptive because of its great length, then the argument cannot be attributed to language. It seems evident, then, that unlikeness of language is not essential to the fallacy and it should therefore be categorized as outside of speech.

167b1-3. Aristotle is claiming that given a conditional statement, if A, then B, A implies B. The interlocutor may expect that B implies A also making the convertible statement true: if B then A. Why would anyone be deceived by this fallacy? While this implication does not necessarily convert, we are often convinced it does because sometimes it happens to convert. Moreover, we are conditioned to reason in this manner because it does give some plausibility. This is the form of reasoning employed both in court and by the hypo-deductive method of modern experimental science.

167b2. The Greek word ἀκολούθησις which I translate here as "implication," I elsewhere (SE 181a23) translate as "what follows."

167b5. Waitz reads ὑπολαμβάνομεν for ὑπέλαβον (cf. Ross, 1958, p. 198). Hasper *may* make a similar deviation from the Ross reading ὑπολαμβάνουσιν which is not in any manuscripts. He does not, however, note this change in his list of deviations (cf. Hasper, 2013, p. 53). It is therefore more likely that Hasper is reading ὑπέλαβον as a gnomic aorist. I also translate ὑπέλαβον here as a gnomic aorist.

167b8-12. Apparently, by "demonstrations according to a sign in rhetorical arguments," Aristotle is referring to enthymemes. By pointing out that enthymemes use signs based on the same structure as the fallacy of the consequent, Aristotle is both pointing out the weakness of the enthymeme from sign and showing the strength of the structure of the fallacy of the consequent. While the fallacy of the consequent is a sophistical refutation insofar as it can falsely appear to be syllogism, this fallacy has some genuine persuasive force as it does in enthymemes.

167a10. Reading ἔλαβον as a gnomic aorist.

167a11. Cf. also Rhet 1401b23-24.

167a12-20. In the *Physics* (186a5-22), Aristotle claims that Mellisus' argument is crude because it assumes false things, and furthermore it is unsyllogistic and illogical insofar as the conclusion does not follow from the premises because it commits the fallacy of assuming the consequent.

167b21-36. The syllogism to the impossible (*reductio ad absurdum*) is a kind of argument that shows that a statement is true by proving that its contradiction is false. Aristotle teaches that the reduction to the impossible uses a kind of conditional syllogism (APr 41a21-39). Cf. also APr 29b1ff and APr 65a37-66a15. He manifests this point with the following example: Either the diagonal of a square and its side have a unit length that measures both lines evenly or they do not. If the side and the diagonal have such a unit, then the same number is both odd and even. The same number cannot be both odd and even; thus, the diagonal and the side do not have a common measure (cf. Heath, 1956, vol. III, p. 2). In this example, something impossible follows necessarily from assuming that the side of a square and its diagonal have a common unit length that can measure them evenly. Since one side of a contradiction must be true, it is therefore clear that the side of a square and its diagonal do not have common measure.

The fallacy from taking what is not a cause as a cause occurs in a reduction to the impossible. A granted premise appears to cause the concluding impossibility, but in fact the impossibility results without assuming the premise. Aristotle illustrates the fallacy with the following example:

Granted Premises:

1) The soul and life are the same.
2) If coming to be is contrary to ceasing to be,[1] then also some kind of coming to be is contrary to some kind of ceasing to be.
3) Coming to be is contrary to ceasing to be.
4) Death is some kind of ceasing to be.
5) Death is contrary to life.

Impossible Conclusion:

6) Therefore, life is a coming-to-be and to live is to become.

The sophist acts as if the first premise—the soul and life are the same—is the cause of the conclusion that life is a coming-into being and that to live is to become. He then further concludes that the soul and life must not be the same. In fact, this conclusion that life is a coming-to-be follows whether or not the answerer grants the first premise. Accordingly, the first premise is not the cause of the conclusion but is treated as such. Some other premise must actually be the cause of the concluded impossibility.

167b25. Aristotle here refers to a premise under the name of a question. One should recall that the *Sophistical Refutations* assumes a context of dialectical disputation. The answer to any question in dialectical disputation may serve as a premise in a possible refutation.

167b37-168a11. The fallacy of making many questions one results from the answerer thinking that he is conceding to one question when he is really conceding to two questions, thus giving the sophist two different premises from which to argue. The sophist mixes two questions one of which is true and the other false so that whether or not the answerer answers yes or no he is in trouble. For instance, the sophist asks "Do you beat your wife often?" You then proceed to claim enthusiastically, "No!" The sophist then addresses the audience, "Ladies and Gentleman, we have a man here who proudly affirms he only beats his wife on occasion." This silly example manifests the

way two questions may be compressed into one so that the answerer cannot respond with a mere yes or no without getting into trouble.

167b39. Aristotle uses here a common grammatical structure in the *Sophistical Refutations* of ὡς + participle. This construction is generally used by Aristotle to indicate the grounds on which the answerer concedes to the sophist without Aristotle's assent to the reason's validity (cf. Smyth, n. 2996).

168a11-16. Perhaps Aristotle's meaning is that a questioner can genuinely refute the answerer if he gets him to concede that one and the same attribute can belong to several subjects before asking the question that really is many questions. For instance, this may occur if the sophist gets the answerer to concede that "things which do not have sight but are naturally disposed to have it are blind." The answerer will be inclined to concede because to be blind is to be naturally disposed to sight but not to have it. If the sophist then asks the double question if Tiresias and Achilles are blind, the answerer will be refuted; he has already admitted that one and the same attribute may belong to several subjects.

Chapter 6: Reduction of Apparent Refutations to Ignorance of Refutation

168a17-24. Since all fallacies appear to be genuine refutations and are not genuine refutations, each fallacy does not comply with a part of the definition of refutation in some way. We can reduce (ἀναλῦσαι) all sophistical refutations to ignorance of refutation using the definition of refutation as our new beginning (ἀρχή). Now since a

refutation is a syllogism with a contradiction, one can unfold the necessary aspects of a genuine refutation according to the definition of syllogism (SE 165a1-2) and the precise characterization of contradiction (SE 167a23-25). Evans observes (1975, p. 51) that it is not surprising that all sophistical refutations—which are all forms of false reasoning—can be reduced to the definition of refutation because contradiction is proper to refutation and the statement of non-contradiction is the foundation of all reason. From the definition of syllogism, one can gather that a refutation must be:

1) From certain premises being laid down,
2) Something else, other than the premises laid down,
3) Follows from necessity,
4) By the premises being so.

From the characterization of the contradiction one can gather that the conclusion must be:

5) A contradiction of one and the same thing
6) Not of the name but of the thing,
7) Not under the synonymous name, but under the same name,
8) According to the same, in relation to the same, in the same manner, in the same time.

By reducing all fallacies to ignorance of refutation, Aristotle is showing a priority of the fallacies outside of speech over fallacies inside of speech. Since the particular fallacy of ignorance of refutation is a fallacy outside of speech, so too is ignorance of refutation generally. Aristotle is reducing fallacies from speech to a confusion outside of speech, and in so doing, he is giving distinction in reality priority over distinction in language. Dorion argues (1995, pp. 90-91) that Aristotle reduces all the fallacies to ignorance of

refutation only after he classifies the sophistical refutations as either inside of speech or outside of speech precisely to give priority to fallacies outside of speech. Cf. also Schreiber, 2003, pp. 144-146.

168a24-28. Aristotle divides fallacies from speech into two subcategories: the fallacies of equivocation, amphiboly, and figure of diction are from the twofold (διττόν) and the fallacies of composition, division, and accent occur because the speech is different. In the first category, the fallacies use one and the *same* speech or word with two different meanings. In the latter category, the fallacies use words or speech that appear to be the same but are actually different and thus the fallacies of the second category are not based on one expression bearing a twofold meaning. Thus, all fallacies from speech play on words or phrases that appear to be the same and appear to signify different things. Sometimes the words or phrases not only appear to be the same but actually are the same, and these are the twofold. Sometimes the words or phrase merely appear to be the same but are in fact different. For instance, in the fallacy of accent, the words are not twofold because they are actually different words, but the fallacy works only insofar as the two words appear to be the same and to bear the same meaning.

This division of sophistical refutations from speech also appears to violate Aristotle's claim that fallacies outside of speech correspond to the number of ways we may fail to signify the same thing with the same name or speech (SE 165b29-30). How can we resolve this difficulty? Galen appears to be correct in claiming that some

fallacies from speech do not actually signify many things, but only potentially signify many things or are imagined to. Aristotle's meaning must be that in so many ways someone may *appear* to signify many things with one name or speech just as he often calls sophistical refutations, refutations. For instance, two words with the same spelling but different accentuation *appear* to be the same word, but they have two different meanings. Thus, there is apparent twofold meaning. Aristotle will repeatedly speak as if all the fallacies from speech are based on the twofold (cf. SE 170a8 and note *ad loc*). See also SE 166a35 and 177a34-35 where Aristotle claims the phrases in composition and in division are the same λόγος. Edlow in his translation of *De Captionibus* shares this interpretation of Aristotle (Galen, 1977, p. 26). All the fallacies from speech appear to take on twofold meaning even if some do not actually take on twofold meaning, and this is the apparent ambiguity upon which all fallacies from speech turn.

There is another question that should be addressed: How is a sentence taken in composition a different sentence when it is taken in division? Edlow claims, "Aristotle's view seems to presuppose the following as a necessary condition of sentential identity: sentence S is identical with sentence S (1) only if, when written, they have the same punctuation, and when spoken, the pauses are placed in the same places." It is a disputed question whether or not there was written punctuation in the time of Aristotle. Most people generally agree that there was nothing equivalent to commas in ancient Greek that would justify a distinction in the written form of phrase taken in

composition as opposed to division. However, Aristotle does claim that only some people used some sort of insignia to signify accent (SE 177b7-8). It seems reasonable enough to claim that the phrases could have some audible distinction which is why Aristotle claims that they are not actually the same λόγος and groups these fallacies with the fallacy of the accent. Cf. Galen, 1977, p. 26. For a more extensive account of historical evidence for differences in written speech for composition and division in ancient times, see Dorion, 1995, pp. 245-249. Galen himself thinks that all fallacies from speech involve real ambiguity (Galen, 1977, p. 44).

How exactly are fallacies from speech reduced to ignorance of refutation? Fallacies from the twofold clearly violate clause 6) "not of the name but of the thing," from the characterization of contradiction—as long as the ambiguity is in one of the extreme terms. When the ambiguity is in the middle term, the fallacy violates clause 3) "Follows from necessity," because the argument does not actually follow. For in this case, the middle term has only apparently unity. In fact, there is no middle term. The fallacies from speech that are not twofold not only violate clause 6) or 3) for the same reasons, but they also violate clause 7) "not of the synonymous name, but of the same name," because the name or speech in the fallacies is not the same. Thus, all fallacies from speech violate either clause 6) or 3), and those that are not twofold also violate clause 7).

168a25. "Speech" (λὸγος) here apparently is a fill in for amphiboly. Cf. also SE 169a22. This fits with the more general association pointed out by Dorion of amphiboly (ἀμφιβολία) with speech (λόγος), and equivocation (ὁνωνυμία) with name (ὄνομα). Cf. SE 165b29, 166a15, 169a23, 177a21. ὁμοιοσχημοσύνη (which I translate as "common-form") is a fill in for "figure of diction." Cf. also SE 170a15.

168a25-26. Aristotle will begin to clarify this odd interjection concerning a "this something" (τόδε τι) later (SE 169a29-36, SE 178b36-179a10 and notes *ad loc*). Cf. also his example of figure of diction at SE 166b12-19.

168a28-33. Perhaps Aristotle is justifying one precondition for a true contradiction, namely, 7) "not of the synonymous name, but of the same name." For using two synonymous names interchangeably to signify one thing in the course of a syllogism prevents the conclusion from being drawn without a further premise that the two names signify the same thing. This condition is relevant to the fallacies of composition, division, and accent because, for example, just as robe (λώπιον) and cloak (ἱμάτιον) are two different words, so too are ὄρος and ὅρος.

168a29. The Greek word for "thing" here is πρᾶγμα. Aristotle uses the word as opposed to word or speech (SE 165a6 and SE 175a8).

168a34-b10. The fallacy of the accident is one of the most important and dangerous of the sophistical refutations. Clearly, Aristotle is claiming that the conclusion in the fallacy of the accident does not actually follow from the premises. For a detailed

analysis of what the fallacy of the accident is and how it can be reduced to ignorance of refutation, cf. Appendix II.I Division of Fallacies Outside of Speech.

168b1. The Greek word συμβέβηκε (which I translate here and elsewhere as "happens accidently") might also be translated as "just happens." While it may be striking that Aristotle claims that a triangle happens accidentally to be figure, his meaning becomes clearer when one considers his meaning of accident in this context. For an account of Aristotle meaning of "accident" in the fallacy, cf. Appendix II.II Senses of Accident.

168b11-16. The fallacy of what is simply and what is in some respect violates the definition of refutation insofar as 5) A contradiction must be of one and the same thing. I may know how many students are in my room in a certain respect, i.e., by knowing that it is a number and it must be odd or even, etc., and at the same time I might not know the number of students in the room simply. Although, I know and do not know the number of students in the room, there is no genuine contradiction because what I know is not truly one and the same as what I do not know.

On the other hand, one can also consider the fallacy of what is simply and what is in some respect as violating criterion 3), Follows from necessity, of a syllogism. For one might consider the fallacy's conclusion to the be the statement that actually contradicts a previously held position, but such a statement would not follow from necessity on account of the premises.

168b17-21. As noted above, I take it that Aristotle's reduction of the specific fallacy of ignorance of refutation to ignorance of refutation in general indicates that he considers the particular fallacy as distinct from general ignorance of refutation. How could Aristotle think that he is reducing something to itself? In my reading, the ignorance of refutation that constitutes the specific fallacy plays on the ignorance of genuine *contradiction*, whereas ignorance of refutation in general plays in addition on ignorance of the whole definition of refutation.

168b19. The Greek word which I translate as account is again λὸγος.

168b22-26. Obviously, the fallacy of begging the original question does not abide by the ofttimes added qualification of syllogism that it does not beg the question (cf. also SE 167a25-26). However, the fallacy also violates clause 2) something else other than the premises laid down. The conclusion must be different from the premises assumed to arrive at the conclusion.

168b24. The phrase "by these [premises] being so" is contained in Aristotle's definition of syllogism (APr 24b18). He also gives an explanation of its meaning: "By 'by these premises being so,' I mean that they happen through them" (APr 24b20-23). In the fallacy of assuming what is not a cause is a cause, the conclusion follows necessarily, but not all the "premises" laid down are conditions for the necessity of the conclusion, although all appear to be.

168b27-29. Aristotle shows that the fallacy of assuming the consequent can be reduced to ignorance of refutation for the same reason that the fallacy of the accident can, namely it does not follow necessarily.

168b28. The statement, "for the consequent is an accident," could more literally this could be translated: "For the consequent just happens (τὸ γὰρ ἑπόμενον συμβέβηκε)".

168b31-35. Aristotle is here articulating the sophistical place upon which the fallacies of accident and consequent are based: "things that are the same by one and the same thing are also the same as one another." Superficially, a concrete premise may appear to be true based on this place because there are often cases where it is true. Aristotle shows that the place is not always true by the following example: a swan and snow are two things the same by one and the same thing, whiteness. In this respect, my translation is superior to that of Foster, Hasper, and Pickard-Cambridge because they all translate the dative phrase ἑνὶ καὶ ταὐτῷ with "as one and the same thing" whereas I translate it as a dative of standard of judgement. This use of the dative is made clear by Aristotle's example because a swan and snow are not the same thing as white, but they are the same as one another by or in whiteness. Cf. Smyth, n. 1512, p. 347-348.

168b35-169a5. Cf. SE 167b13ff and note *ad loc*.

168a6-18. Fallacies from making many questions into one violate criterion 1) "from certain premises being laid down" from the definition of syllogism. Aristotle defines (APr 24a16) a premise as λόγος καταφατικὸς ἢ ἀποφατικός τινος κατά τινος [a

speech which affirms or denies a term of a term]. A premise may be either universal, particular, or indefinite and either dialectical or demonstrative (APr 24a17-b15). A premise, however, cannot apply one predicate to two subjects or vice versa.

169a18-21. In his footnote for this passage, Poste presents (1866, pp. 115-116) a difficulty with Aristotle's claim that the contradiction is apparent in fallacies from speech. Cf. also Dorion, 1995, p. 250. If the ambiguity of language is in the middle term, then the conclusion does not follow from the premises. In such a case, the problem is that the conclusion does not follow, not that the contradiction is apparent. Only if the ambiguity is in one of the extremes, then the conclusion may follow but there will not in fact be a contradiction. Aristotle himself says as much (SE 171a9-11). To be forgiving of Aristotle's inconsistency, perhaps we could say that he is uncharacteristically speaking loosely here. As far as I am aware, no solution has been offered to this difficulty.

169a18. The Greek word which I translate as places here is τόποι following Ross and Boethius. E. S. Foster along with Michael Ephesus, Jonathan Barnes, W. A. Pickard−Cambridge, Louis Dorion, and Pieter Sjoerd Hasper replaces τόποι (places) with τρόποι (ways), although manuscripts generally have τόποι. Cf. Ross, 1958, p. 203. By doing so, they blur the implication that Aristotle sees the fallacies as places in a similar way to the sense of place used in the *Topics*. That is, the *Sophistical Refutations* is the negative counterpart to the *Topics*. For a more thorough explanation of this point consult Introduction II.VIII Fallacies as Places.

Aristotle claims that all sophistical places can be reduced to the definition of refutation, but curiously he does not lay out how the fallacy from taking what is not a cause as a cause violates the definition of refutation. The fallacy of taking what is not a cause as a cause reduces to ignorance of refutation by violating criterion 4), by the premises being so. Criterion 4) requires that each of the premises is necessary the for the conclusion to follow (cf. SE 170a1-2 and note *ad loc*). For in this fallacy, a premise is added from which the resulting impossibility appears to follow, but does not actually follow. Each premise laid down must be relevant to the conclusion; when a premise appears to be relevant but is not, the argument commits the fallacy of taking what is not a cause as a cause.

Chapter 7: How People are Tricked by Fallacies

169a22-30. Albert the Great observes (1890, I, tr. 5 c. 2 p. 617b) a common thread in how all fallacies deceive: *[I]n omni fallacia tam in dictione quam extra dictionem generatur deceptio ex hoc quod discerni non possunt idem et diversem: in fallaciis quidem in dictione, ex hoc quod non potest discerni idem in sermone et diversum in re: in fallaciis autem extra dictionem, eo quod non potest discerni idem et diversum partim secundum rem et partim sermonem* [In all fallacies, both in speech and outside of speech, deception happens because what is the same and what is different are not able to be distinguished: in fallacies from speech indeed, {the deception happens} because what is the same in speech and different in reality cannot be distinguished; in fallacies outside of speech, {the deception happens}

because what is the same and what is different partly according to the thing and partly according to speech cannot be distinguished]. A failure to make a distinction is the foundation of every fallacy. In the fallacies from speech, a person fails to make a distinction because of a likeness in speech. In the fallacies outside of speech, a person fails to make a necessary distinction because of a likeness in things that translates over into a likeness in speech as well.

In Chapter 7, Aristotle shows how each sophistical refutation is the result of an overlooked distinction. This chapter then is in harmony with his general account of likeness as a cause of error in Chapter 1. For only insofar as things are like one another is it possible to fail to distinguish between them. The account of fallacies as caused by a failure to make distinctions extends beyond specific fallacies discussed in the treatise. For example, the famous algebraic argument that concludes 1=2 hinges on overlooking the distinction between dividing a number by zero and dividing by some other number (cf. Weisstein, 2017, p. 1).

All the fallacies from speech result from the failure to distinguish between the actual meaning of a word or speech and some of the meaning of the same word or speech, either real or imagined. It is interesting to note that the order in which Aristotle lists the fallacies inside of speech here retains the order in which he first enumerated and subsequently considered them in Chapter 4. The consistency may be a sign that Aristotle has listed fallacies in this order for a reason.

169a23. In this case, λὸγος (which I translate here as speech) is a fill in for amphiboly. Cf. also SE 168a25.

169a31-32. Sylvester Maurus (1885, I, p. 624) makes the following comment on this passage: *cum saepissime dictiones similes significant similes res, difficile est discerne quando dictiones similes significant similes res, quando dissimiles* [since very often similar phrases signify similar things, it is difficult to discern when similar phrases signify similar things as opposed to when they signify dissimilar things]. Cf. also SE 166b15-19 for an example from Aristotle.

169a33. Retaining ἐπίσταται with Dorion and Barnes. Poste, Hasper, and Forster read ἐπισπᾶται. Cf. Poste, n. 2, p. 116.

169a33-36. Cf. SE 168a25-26 where Aristotle claims that it is customary to signify everything as a this something (τόδε τι). τόδε τι (which I translate literally as this something) is often translated as individual substance. It is Aristotle's technical phrase for a reality that subsists or exist through itself and not through adhering in another being as an accident does (Cat 3b10-23). Cf. also Sokolowski, n. 34, p. 283. As Aristotle explains, "man" does not signify a τόδε τι but "Coriscus" does (SE 178b36-179a10). "Being" (τὸ ὂν) may signify a this something when "being" is used under the category of substance (Meta 1028a10-15).

169a36-39. Aristotle reveals here a property that is true of all fallacies from speech: they occur more when we are in discussion with others or when we think out loud. For the likeness that is the cause of deception in the fallacies from speech occurs in the speech.

Hamblin (1970, p. 60) uses this passage as evidence for his claim that "dialectic is unessential to the pursuit of truth." Dorion claims that "this passage denies the dialectician the ability to attain the truth" (Dorion, 1995, n. 107, p. 253). While the passage says error is more prevalent in discussion, it does not show that a dialectician's knowledge of the truth would be accidental to his being a dialectician; such a claim is a gross overstatement. Clearly, Aristotle does not give dialectic the elevated status it has for Plato (cf. *Republic*, 531d-534e and 537c), but in several places, he argues that dialectic is useful for attaining the truth. In the *Topics*, for instance, he claims it is *proper* (ἴδιος) to dialectic to be the road to the principles of sciences (Top 101b1-15). In the *Metaphysics*, he claims that a dialectician is in a better position to see the truth because he knows the arguments on both sides (Meta 995b1-5). For a more thorough discussion for the uses of dialectic, consult the Introduction III.I Uses of Dialectic in General.

169b6. The Greek word which I translate as "happen accidentally" is συμβέβηκεν. It is the finite form of συμβεβηκὸς from the fallacy of the accident.

169b9-11. That is, the fallacy of ignorance of refutation occurs because there is a small difference between what merely appears to be a refutation and what is genuinely a

refutation. The fallacy of what is simply and what is in some respect occurs because there is a small difference between what is so simply and what is so in some respect.

169b11-12. Aristotle is claiming that if a statement is true in some qualified way, we are inclined to concede that the statement is true simply (i.e., in an unqualified way). It seems clear enough that it is also possible to move in the other direction. If a person does not know what virtue is simply, he will be inclined to think that he does not know what virtue is in a certain respect. How can a person know if virtue can be taught if he does not know what virtue is?

169b16-17. Perhaps the "aforementioned reason" Aristotle is here referring to is from 169b11-12 where he says we often do not think that a qualification in time or manner or relation, etc., makes a difference. As Sylvester Maurus (1885, I, p. 625) puts it "*parum pro nihilo reputator* [something little is regarded as nothing]."

Chapter 8: That the List of Sophistical Refutations is Complete; How a Sophistical Refutation is a Refutation

169b18-20. Chapter 8 of the *Sophistical Refutations*—as this first line makes clear—argues that Aristotle's taxonomy of sophistical refutations is complete (SE 169b18-170a11) and then explains in what way a sophistical refutation may be called a refutation (SE 170a12-19).

169b18. Bekker and almost all the manuscripts have ὁπόσα, but Forster reads ὅσα with Michael of Ephesus (cf. Ross, 1958, p. 205). I am reading ὁπόσα.

169b20-29. The Greek word πρᾶγμα at SE 169a23 (which I here and elsewhere translate as thing, cf. SE 165a8, SE 175a8 and SE 177a31), Forster translates as subject (Forster, 1955, p. 47). Subject is a possible meaning of πρᾶγμα and likely the word's meaning at SE 171b8ff and SE 170a32. Forster's translation leans to a certain interpretation of the text which introduces a new kind of sophistical refutation. Aristotle claims (APo 71b19-24) that a principle must be proper to the subject matter to have knowledge (ἐπιστήμη): "If knowing is what we have said, demonstrative science must be from [premises which are] true and primary and first and immediate and more known and before and causes of the conclusion. For thus will *the principles be proper to what is demonstrated*. For surely a syllogism will be without these, but it will not be a demonstration. For it will not produce knowledge." Cf. also APo 74b21-25. To be a demonstration, a syllogism must argue from principles proper to a subject matter. It seems possible that premises could appear to be proper to a science, while not actually being proper to that science. One could then syllogize from the premises—which would be genuinely endoxic—to conclude in what is not knowledge, but appears to be. In this reading, a genuine refutation could be sophistical insofar as it merely appears to be "germane to the subject in hand." Foster's translation leans toward this interpretation.

Aristotle's meaning is likely different than this interpretation because it does not harmonize with what he says in the rest of the chapter. First and foremost, Aristotle concludes the chapter by stating that his original taxonomy of fallacies is complete.

How could this be if there was a whole new category introduced in this chapter that he had not previously discussed? Second, fallacies of this kind would better fall into the category of the false-diagrammatic which Aristotle later excludes from the subject of this treatise. Cf. SE 170a20ff and notes *ad loc*.

Rather πρᾶγμα in the passage should be interpreted as referring to what the answerer signifies in his answers. This reading is in harmony with SE 177a31-32 where Aristotle claims that an answerer should argue that what he said "does not deny the thing (πρᾶγμα), but denies the name" when dealing with fallacies of equivocation. A genuine refutation may be sophistical which reasons from premises that only appear to be endoxic, but are not (Top 100b23, SE 165b8 and note *ad loc*). Thus, an argument may falsely appear to refute an answerer, even though the argument is rigorous because its premises are not actually accepted by the answerer, though they seem to be.

169b25. The testing art (ἡ πειραστικὴ) is ordered to producing arguments that examine or test an interlocutor's knowledge., Aristotle distinguishes dialectical arguments from testing arguments (Top 159a25-36). Cf. also SE 171b3ff. Perhaps Aristotle contrasts the testing and sophistical arts because both syllogize to false conclusions. A sophistical refutation, however, does not reveal an answerer's ignorance because it either does not syllogize or it does not syllogize to a true contradiction. The testing art reveals ignorance in an answerer when it syllogizes to a false conclusion because it syllogizes

from the answerer's real positions to a genuine contradiction of another position that he holds.

169b34-37. Some arguments ordered to the first aim—refutation—share a common property with arguments ordered to the fourth aim—solecism (cf. SE 165b12ff). Introducing an additional question into the discussion will often reveal that the argument is false. For fallacies from speech, an interlocutor can simply ask which meaning of the speech is intended before he answers. Similarly, Aristotle argues that with a supplementary question one can untie an argument leading to a solecism (SE 182a18-26).

169b40-170a1. In this difficult paragraph, Aristotle validates his taxonomy of fallacies as complete by again showing how each kind of fallacy violates some part of his definition of refutation.

170a1-2. Aristotle is naming the fallacy of non-cause as a cause by its correlative genuine refutation: the reduction to the impossible (cf. SE 167b21-36 and note *ad loc*). The fallacy of non-cause as cause leaves out the fourth criterion in the definition of syllogism: that the conclusion follows *by the premises being so*. In other words, in the fallacy of non-cause as a cause, the conclusion follows but not on the basis of all the premises. The resulting impossibility is thought to be derived from a premise which is not in fact its cause.

170a3. Cf. SE 169a6-16.

170a4-5. Cf. SE 168b27-169a5.

170a5-6. Aristotle here groups all fallacies from speech together. He can do so because in all fallacies from speech what the speech signifies appears to be the same; if the ambiguous speech is the middle term, then the conclusion does not follow, and if the ambiguous speech is one of the other terms, then the conclusion does not contradict the previously held position of the interlocutor. As Dorion notes (1995, n. 122, p. 257), categorizing fallacies from speech in this way implies that they are all from the twofold. Aristotle, however, claims that only three of the fallacies are from the twofold (cf. SE 16823-28 and notes *ad loc*). How do we reconcile this discrepancy? Every fallacy from speech *appears* to take on twofold meaning insofar as each involves words or speech that look the same but signify different things. This apparent ambiguity is the ambiguity upon which all fallacies from speech turn.

170a8-9. The phrase "not reckoning in the original [question]" is found in the qualifications of syllogism's definition (SE 168b22-26, SE 167a36-39). Cf. also SE 167a25-26.

170a12-19. In this passage, Aristotle makes explicit what was implicit in his definition of sophistical refutation, namely that a sophistical refutation is only a refutation in relation to an interlocutor. Due to his inexperience, the answerer may believe that he has been refuted. For a sophistical refutation is an argument that *appears* to be a refutation, but is not. This aspect of appearance implies a relation to a beholder; hence

the same argument may appear to be a refutation in relation to one interlocutor and not to another. A refutation simply speaking is a genuine refutation.

170a15. ὁμοιοσχημοσύνη (which I translate as common-form) is a fill in for figure of diction. Cf. also SE 168a26.

Chapter 9: In What Respect the List of Sophistical Refutations is Complete

170a20-30. Chapter 9 argues that Aristotle's treatment of sophistical refutations is complete despite the fact that it is impossible for any artisan to have knowledge of every possible fallacious argument. Rather the dialectician should determine a complete taxonomy of fallacies resulting from principles that may be applied to any science. Aristotle already argued that his list fulfills the task in Chapter 8.

In the first paragraph, Aristotle reasons that it is impossible to have a complete knowledge of all genuine refutations. Although dialectic is ordered to reasoning about any proposed problem and avoiding refutation in any situation (Top 100a18-21), the dialectician does not seek to understand the sources of all refutations. It is impossible to know the sources of all refutations without first knowing everything. Every demonstrated conclusion has a contradiction, and every demonstration's conclusion refutes anyone holding its contradiction. Thus, there are as many possible refutations as there are possible demonstrations, which are themselves based on the proper principles of various sciences. Sciences seem to be infinite, so then demonstrations must be likewise, and refutations too. Accordingly, one cannot possibly know the sources of all

demonstrations nor the sources of all refutations. What the dialectician knows are rather the *places* to look for dialectical syllogisms that will apply in all disciplines. Cf. SE 170a34-35 and APo 77a26-78a21.

170a30-b3. Schreiber thinks Aristotle 170a30-34 is addressing an objection to his own attempt to classify fallacies. He quotes De Morgan, for instance, as objecting that "there is no such thing as a classification of the ways in which men may arrive at error: it is doubted whether there can ever be." This passage is cited in Hamblin, 1970, p. 13. Schreiber misrepresents (Schreiber, 2003, p. 85) Aristotle's answer to this objection, however, by claiming that Aristotle appreciates the infinite variety of error but thinks twelvefold taxonomy of fallacies can solve "all such errors." Schreiber argues that Aristotle's taxonomy claims "these potentially innumerable confusions can all be resolved by understanding a relatively limited number of facts about language and the extralinguistic world" while holding an infinity of solutions is possible "πρὸς ἡμῖν." Aristotle does indeed argue that his list is complete (169b18-170a11) and that there are some resolutions of fallacies that are merely πρὸς τὸν ἐπωτῶντα (Cf. SE 177b27-b34 and notes *ad loc*), but, be that as it may, Schreiber fundamentally misunderstands Aristotle's project. Aristotle is neither trying to unfold all errors in reasoning nor to explain all possible fallacies.

Quite the contrary, Aristotle is saying a limited taxonomy of all fallacies and their resolutions is *impossible* without knowledge of everything just as it is impossible to

have a knowledge of all genuine refutations. For it would require a knowledge of all the sophistical places proper to each art. Aristotle is claiming that his thirteen fallacies are a complete list of the ways of producing sophistical refutations *proper to dialectic*. These are fallacies that are based on sophistical places and hold in any discipline. No one art considers all fallacies based on the principles proper to particular sciences. In other words, Aristotle is here trying to delineate the field in which his list is complete. The thirteen fallacies are a complete list of all fallacies that may be used in arguing about any subject matter.

170a30. ἀλλὰ μὴν (which I translate as moreover) may mark a new item on a list or a new stage on a march of thought. Cf. Denniston, 1996, p. 344.

170b3-11. Just as the dialectician does not grasp the sources of all syllogisms, but only places that can be used to derive endoxes for syllogisms in any discipline, so too the sophist does not grasp the sources of all sophistical refutations, but merely the places from which one can derive sophistical syllogisms in any discipline. Some fallacies are based on what is proper to specific sciences—the understanding of which will be proper to the master of that science (Top 101a5-16). Thus, the dialectician considers all syllogisms—real or apparent—that are based on principles applicable to any discipline.

Chapter 10: A False Division of Arguments

170b12-13. In Chapter 10, Aristotle argues against a false division of arguments into two categories: those 'towards the thought' (πρὸς τὴν διάνοιαν) and those 'towards the

name' (πρὸς τοὔνομα). An argument is 'towards the thought' when the questioner takes a name to signify that same thing that his answerer had in mind when he answered his question. An argument is 'towards the name' when a questioner takes a name in his interlocutor's answer to mean something different from what the answerer intended and then forms arguments against the answerer using the same name, but in its unintended sense (SE 170b14-19). As Dorion points out, Socrates describes this phenomenon of arguing towards the name (which is the same as not arguing towards the thought) in Plato's Euthydemus: "[Y]ou ask a question with one thing in mind and I understand it with another and then answer in terms of the latter" (*Euthydemus* 295c3-5, trans. Sprague). Whoever the original proponent of the division was, Aristotle argues as if the division's proponent thinks all fallacious arguments fall under arguments 'towards the name' and all legitimate arguments fall under arguments 'towards the thought.' For a thorough account of evidence regarding the original author of this division, Cf. Dorion, 1995, n. 135, pp. 261-268.

170b15-19. Aristotle's argument against this division is clear. The division of all arguments into those 'towards the name' and those 'towards the thought' is incorrect because some arguments would fall under both categories. Overlap is a sign of a inadequate division. Just as a proper definition must distinguish the principles of a thing, a proper division will distinguish the parts of a whole, that is, parts that do not

overlap. Aristotle takes issue with this division because it does not allow one to see different kinds of argument distinctly as some arguments fall into both categories.

170b23. Dropping [Ζήνων] as a gloss. Cf. Ross, 1958, p. 208. It is possible that Aristotle is referring to the Eleatic's argument that everything is one (cf. SE 182b25-27).

170b25. Aristotle's question is rhetorical. Aristotle has given an example of an argument that must be categorized as towards the thought and towards the name. An argument is 'towards the thought' when the questioner uses words with the same meaning that the answerer does. So, what happens when both questioner and the answerer equivocate? The argument is still 'towards the thought.' However, it also falls under arguments 'towards the name' because it uses the same term with equivocal meanings although neither interlocutor detects the equivocation. The proposed division, therefore, cannot be correct since it would place the same argument on both sides of the division.

170b25-32. Since 'towards the name' means using the same word or words that your interlocutor used but with a different meaning, being directed 'towards the name' is the same as 'not towards the thought.' In other words, the proposed division of arguments is a relative distinction; it depends on how the interlocutors relate to the argument rather than on the objective validity of the argument. Thus, if the answerer erroneously thinks that a word is used equivocally, then one would categorize the arguments as 'towards the name,' although there is no equivocation absolutely. For there is no reason

why the respondent cannot be mistaken. Aristotle will illustrate precisely this case with his triangle example (SE 171a12-16). Clearly then, *any* argument can be categorized as towards the name. Aristotle finds the implications of the proposed division strange or absurd (ἄτοπος).

170b35-40. Aristotle takes the proposed division to imply that all arguments directed towards the name are fallacies, and all arguments directed towards the thought are genuine. Aristotle notes that not even all fallacies from speech are based on equivocation and that the characterization of an argument as a fallacy must be based on the argument itself, not on how a respondent relates to the argument. Some arguments equivocate whether or not they use the meaning intended by the interlocutors.

171a1-11. As Taran pointed out (1981, p. 74), the passage seems to be a digression from the main thread of this chapter which directly argues against the proposed name/thought division. As an aside, Aristotle makes the "methodological" point that one must discuss refutation before apparent refutation and syllogism. It seems Aristotle is implicitly arguing against the name/thought division by arguing against its proponent's method of discussing fallacies. Without a thorough understanding of the nature of refutation and therefore syllogism, how can one reasonably classify good and bad refutations?

On another note, Aristotle's admission (SE 171a5-7) that the same argument can violate both the definition of contradiction and the definition of syllogism is verification

that the same argument can commit many fallacies, and thus be categorized into two different fallacies for different reasons. There is nothing to prevent the same argument from having many faults (cf. SE 179b18-19 and note *ad loc*). Cf. also SE 181b19-20 and note *ad loc*.

171a8. The argument that Aristotle says is about "speaking of the silent" is referring to the same argument as that of SE 166a12-15.

171a10. It appears that the argument concerning Homeric poetry Aristotle also refers to in the *Posterior Analytics* (77b32). Tricot (1939, n. 4, p. 145) gives a reasonable replica of the argument:

1) Every circle is a figure.
   Homer's epic is a circle (cycle).
   Homer's epic is a figure.

171a17-23. An argument that should be categorized as 'towards the name' because it equivocates may also be 'towards the thought' because it operates in accord with the answerer's intended meaning.

171a23-25. Aristotle concludes that there are arguments directed towards the name, namely fallacies of equivocation. However, these fallacies do not exhaust all possible fallacies or even those from speech. There are not arguments directed towards the thought because this is a relative qualification which depends on the answerer's posture towards the argument itself. Aristotle contends that arguments should be categorized

based on what they are in themselves and not on how any one answerer thinks about them because different answerers will take the same argument in different ways.

171a25-27. One of the most prevalent current opinions contrary to Aristotle's is that all fallacies are from speech or language. Wittgenstein's position (1976, I, pp. 109, 132-133) is a particularly strong instance of this.

171a35. Restoring the μή, with all translators, that Ross inadvertently drops. The μή is in all manuscripts.

171a36-38. Perhaps Aristotle is thinking that if knowledge of contraries is the same—i.e., that through one intention all contraries are known—then all contraries will be known or unknown since there is either an understanding of them or not. If knowledge of them is the same then either all are known, or all are unknown, but they are not all known. Thus, knowledge of contraries is not the same. Taking the statement "knowledge of contraries is the same" severally has a different meaning from taking it collectively.

171a38-b2. It is not the responsibility of the dialectician to distinguish the meanings of words for his interlocutor unless asked, while, in contrast, it is the responsibility of the teacher (Top 110a23ff). This last paragraph of Chapter 10 as a whole seems to belong more properly to Chapter 11 where Aristotle considers the different functions of the teacher or demonstrator and the dialectician and sophist.

Chapter 11: The Distinction and Relation of Different Arts of Argument

171b2-3. To repeat, the beginning of Chapter 11 could have well included the end of Chapter 10. Chapter 11 completes Aristotle's treatment of the first aim of the sophist, i.e., the sophistical refutation, through a comparison of the differences between dialectical and testing, sophistical and contentious, demonstrative, and false-diagrammatic arguments.

171b3-6. Aristotle defines testing arguments in Chapter 2 as arguments which "syllogize from opinions held by the answerer and from premises that anyone pretending to have scientific knowledge must know." Cf. SE 165b4-6. If a dialectical disputation is not for the sake of competing, it may be πείρας καὶ σκέψεως χάριν [for the sake of testing or looking]. Cf. Top 159a33. A testing argument "is able to syllogize to what is false through the ignorance of the one who grants the argument." Cf. 169b25-27. The testing art then is ordered to exposing the ignorance of an interlocutor through making testing arguments. The Greek διαλεκτική τις (which I translate as "a certain aspect of dialectic" at SE 171b4-5) may be translated more literally as "a certain dialectic." Aristotle will claim elsewhere that it is a part (μέρος) of dialectic. Cf. SE 169b25. In the *Metaphysics*, Aristotle states ἔστι δὲ ἡ διαλεκτικὴ πειραστικὴ περὶ ὧν ἡ φιλοσοφία γνωριστική, ἡ δὲ σοφιστικὴ φαινομένη, οὖσα δ' οὔ [The dialectical art employs the testing art concerning issues which philosophy knows, but the sophistical art appears to know, but does not]. Cf. Meta 1004b25-26.

171b6. The Greek word πρᾶγμα (which I translate here as subject) I elsewhere translate as thing (SE 171b18).

171b6-22. Aristotle gives two kinds of apparent syllogism. The first is the sophistical or contentious syllogism which—when it leads to a contradiction—is the subject matter of the treatise. The contentious syllogism concerns the same things that dialectic does when it employs its testing art (περὶ ὧν ἡ διαλεκτικὴ πειραστική ἐστι, b9). Dialectic concerns places which "are common to every art and ability" (SE 170a36). As a result, sophistic uses *common* sophistical places to derive apparent endoxes or to produce apparent syllogisms, e.g., a sophist can use the fallacy of equivocation in any discipline. Some apparent syllogisms, such as false-diagrammatic (ψευδογράφημα) fallacies (παραλογισμοί), concern the sort of premises that demonstrations use, that is, premises that are proper to a discipline. Hence false-diagrammatic fallacies argue from false premises that are proper to a discipline.

A false-diagrammatic may be a false demonstration which relies on false premises proper to geometry; it is often caused by a poorly drawn diagram although not necessarily. Alexander of Aphrodisias supplies a number of these fallacies in his commentary on the *Topics* (2001, 21-25, p. 12). Aristotle gives two examples of false syllogisms for a geometric conclusion. The first is that of Hippocrates which is a false-diagrammatic. The second is that of Bryson which is a contentious syllogism because it relies on faulty reasoning that can be used outside of geometry. Both arguments are

fallacious, although Hippocrates' argument relies on a mistake that cannot be used outside the sphere of geometry, and Bryson's mistake can (APo 75b41, APr 69a32). Speculation is conflicting about the exact nature of Hippocrates' and Bryson's arguments (cf. Thomas, 1980, I, pp. 234-253, 310-313, and 314-317; Aquinas, 2007, pp. 76-79; Poste, 1866, p. 245ff). For a synoptic account of the various interpretations, cf. Dorion, 1995, pp. 282-285.

171b22-34. Apparent refutations, then will not be used only be sophists strictly—who use deceitful arguments to appear wise in order to make money—they will also be used by anyone whose desire to win overpowers their sense of fair play, a strife-lover. When a sophist uses an apparent refutation, it is a sophistical. When strife-lover uses an apparent refutation, it is a contentious.

171b28-29. Cf. SE 165a21-23

171b34-172a2. Aristotle shows (APo 75a38-b20) that οὐκ ἄρα ἔστιν ἐξ ἄλλου γένους μεταβάντα δεῖξαι, οἷον τὸ γεωμετρικὸν ἀριθμητικῇ [one cannot demonstrate while changing from one genus to another in the *Posterior Analytics*. A dialectical topic, however, can be used in different subject-genera. This discrepancy is also found in fallacious arguments. Thus, the false-diagrammatic fallacy is to the demonstration as the sophistical syllogism is to the dialectical syllogism.

172a7. Aristotle also cites Antiphon's argument as one that violates the fundamental assumptions of a science. Such an argument is not refuted by that science because a

science cannot prove its principles (Phys 185a13-20, Top 101a37-b4). For an account of Antiphon's argument, cf. Heath, 1981, vol. I, pp. 221-223; Thomas, 1980, pp. 310-317; and Apostle, 1981, p. 120.

172a8-9. Zeno has a number of arguments concluding that motion is impossible (cf. Phys 239b100ff, DK A25-28). Obviously, Zeno's arguments do not proceed from terms and principles proper to the subject of medicine, and thus it would be absurd if the doctor as doctor argued against them.

172a9-11. Perhaps, Aristotle is pointing out that his original analogy is not perfect because dialectic is not a science the way in which geometry is a science. For one might think that since the relation of false-diagrammatic to geometry is the relation of pseudoscience to a science, then the relation of sophistic to dialectic must be the relation of pseudoscience to a science. He argues, however, that if dialectic were a science, sophistical reasoning would not be able to argue about geometrical issues. However, we find contentious reasoning applied to matters of geometry such as the argument of Antiphon. Thus, dialectic and contentious reasoning do not use principles proper to a subject-genus. Rather, as he says below, it proceeds from answers to questions. Therefore, dialectic does not demonstrate because demonstration proceeds from proper principles. Instead, dialectic uses common dialectical places to determine which questions to ask in order to lead an interlocutor into contradiction. For a more thorough

discussion of the relation between demonstration and a dialectical syllogism, cf. Introduction II.IV Aristotle's Division of Syllogisms.

172a11-21. Aristotle appears to be making that case that three marks of science are not true of dialectic. A science has a specific subject genus, it demonstrates, and its conclusions are commensurately universal (καθόλου) with the subject. For example, geometry will not show that an equilateral triangle has angles equal to two rights, but that a triangle does. Commensurately universal is a special sense of universal which Aristotle explains (APo 73b26-27): καθόλου δὲ λέγω ὃ ἂν κατὰ παντός τε ὑπάρχῃ καὶ καθ' αὑτὸ καὶ ᾗ αὐτό [I call "universal" what belongs according to all and according to itself and as such]. Since dialectic is not ordered to scientific knowledge, but the refutation of an opponent, its conclusions and premises need not have any of the properties necessary for a demonstration.

172a21-34. Aristotle's allusion to Socrates is unmistakable (cf. *Apology* 21b). A dialectician does not need to have knowledge of any science to be able to refute someone who claims to have knowledge of that science. Dialectic, insofar as it is ordered to the refutation of an opponent, is also a testing art. It can reveal an interlocutor's ignorance, through his refutation. It does so through the use of common principles (τὰ κοινά) that may be applied to any science, e.g., dialectical places and axioms. Thus, Socrates can be ignorant of what virtue is, and still be able to expose Meno's ignorance of what virtue is (*Meno* 70a-80e). Socrates is able to manifest that

Meno does not know what virtue is through principles that would apply to any definition in any science: namely that a definition should express what all instances of the thing defined have in common (*Meno* 72a-73c), and a definition should be commensurately universal with the thing is defines (*Meno* 73c-74b and 77b-78b). Again, in the *Gorgias* (474cff), Socrates uses the dialectical place 'if a contrary belongs to a contrary, then its contrary belongs to the other contrary' (Top 113b27-114a7) to get Polus to assume the endox that 'if doing injustice is shameful, then acting justly is admirable.' This dialectical place could be used in other disciplines to produce endoxes, e.g., if the rapid motion of creates heat, then the slow motion of particles creates cold. Again, every refutation involves a contradiction, so the knowledge of the axiom of non-contradiction is part of the foundation of dialectic and, in fact, all discursive reasoning (cf. Wians, 2006, pp. 337-340). The dialectician is able to be ignorant about a discipline and still test whether or not someone else has knowledge of the discipline using axioms or dialectical places that can be applied to any discipline.

172a29. Cf. Meta 1004bb19-20.

172a29-30. Such as the principle of non-contradiction, the principle of the excluded middle, the "said of all" principle, and so on (cf. Meta 996b33-997a10, APo 77a26-35).

172a34-36. Cf. Rhet 1354a1-12.

172b5-8. While Aristotle advises a dialectician to form a systematically ordered collection of other school's positions and opinions which he may draw from to use as

premises in refutations (Top 105b12-18), this is not what he is referring to here. Given the context, the investigation (μέθοδος) of premises must refer back to a knowledge of dialectical and sophistical places which serve as templates to determine which endoxic or apparently endoxic premises one opponent will likely accept.

Chapter 12: Eliciting False Statements and Paradoxes

172b9-11. Sylvester Maurus (1885, p. 598) accurately describes Chapter 12 as *de locis per quos sophista ducit ad finem seu metam falsi et inopinabilis* [concerning the places through which the sophist leads his opponent to the end or goal of what is false or inconceivable]. After unfolding the places to look for sophistical refutation—which is the sophist's primary goal—Aristotle now turns to the places by which the sophist may bring about his secondary goals. He first considers those that force an opponent to state what is false or paradoxical. Since these two goals are so *valde affines* [strongly related], Aristotle treats them together. Some of the same places used for leading an opponent into saying something manifestly false are useful for leading him into asserting a paradox, and vice versa.

172b10. The Greek word that I translate as "disreputable opinion" is ἄδοξος, the substantive adjective. The word is the antonym of ἔνδοξος, but it is also plainly a synonym for παράδοξος. Cf. SE 165b19-20 where an almost identical phrase is rendered with παράδοξος in place of ἄδοξος. I maintain the actual distinction between the two words in translation by translating παράδοξος as paradox.

172b12-16. When no dialectical problem has been laid down—a question which is the subject of inquiry—then the answerer does not know which of his stated opinions the sophist will try to refute (Top 104b1-5). When he does not foresee which position his interlocutor is trying to refute, he cannot adjust his answers to prevent the refutation.

172b16-21. Aristotle is more forthcoming concerning this place in the *Topics* (111b32-112a16). Cf. also Top 116a20 and SE l72b26. A questioner will try to lead his opponent into taking a position that the questioner has many arguments against. In the passage from the *Topics*, Aristotle explains that sometimes the position will be germane to the question under discussion, and other times it will merely appear to be. Obviously, this place is relevant for both a dialectician and a sophist. Poste notes (1866, p. 135) that this common activity of the dialectician and sophist shows their affinity.

Dorion gives a reasonable example for Plato's dialogue *Lesser Hippias* (364c-369e). In the dialogue, Socrates leads Hippias away from the discussion of Achilles superiority to Odysseus in Homer's poetry to a discussion of whether or not a truthful person and a liar are distinct. A frustrated Hippias then criticizes Socrates for "pick[ing] out whatever is the most difficult part of the argument, and fasten[ing] unto it in minute detail, and not disput[ing] about the whole subject under discussion" (369b9-c9, trans. Grube).

On another note, the Greek word that I translate with the plural "attacks" is ἐπιχείρημα (SE 172b19). Aristotle opposes this word to a demonstrative syllogism and defines it as a dialectical syllogism (Top 162a16). Robin Smith, however, argues that the

passage is spurious (1997, p. 144). Spurious or not, this technical use of the word does appear harmonious with Aristotle's use in the text here and elsewhere. Cf. also its use throughout Chapter 15 for example. Moreover, I am reading ἄγειν rather than ἄγει with Hasper and Dorion (cf. Ross, 1958, p. 214).

172b21. Element (στοιχεῖον) is another name that Aristotle uses for a place (τόπος) or topic. In the *Rhetoric* (1403a18-19), Aristotle says, τὸ γὰρ αὐτὸ λέγω στοιχεῖον καὶ τόπον· ἔστιν γὰρ στοιχεῖον καὶ τόπος εἰς ὃ πολλὰ ἐνθυμήματα ἐμπίπτει [I call the place and the element the same, for a place and an element are that into which many enthymemes fall]. For a discussion of Aristotle's use of the word τόπος in the *Sophistical Refutations*, consult the Introduction II.VIII Fallacies as Places.

172b27-28. Aristotle is probably referring to Top 111b32-112a16. Cf. also SE 172b19 and note *ad loc*.

172b29-173a30. In the remainder of the Chapter, Aristotle lays out the places used by the sophist as means to lead an opponent into stating a paradox. All such places are based on some opposition. The first place is based on the opposition between what an interlocutor's philosophical school holds and what is common opinion. The second place is based on the opposition between what the interlocutor says and what he does or wishes. The third place is based on what is according to law and what is according to nature. Finally, the fourth place is based on the opposition between the opinions of the wise and the opinions of the many. The sophist uses these oppositions because on one

side are opinions that the interlocutor will accept, but on the other side, there are endoxes. Thus, the interlocutor will likely accept the opinions espoused by his school, even if they will lead to opinions that are contrary to endoxes, i.e., opinions that are paradoxes.

172b29-31. The Greek word γένους (which I translate as group) typically means genus in Aristotle's logical works. Most likely, Michael of Ephesus is correct in interpreting γένους as referring to a philosophical school or intellectual heritage (1898, p. 101): σκόπει καὶ ἐξέταζε ὁποῖός τίς ἐστιν οὗτος καὶ ποίας αἱρέσεως καὶ ποίου δόγματος ἀντέχεται τῆς φιλοσοφίας, εἰ Περιπατητικός ἐστιν ἢ Στωικός [consider and examine thoroughly what sort of person he is and what sort of inclinations and what sort of doctrine of philosopher he cleaves to—if he is a Peripatetic or a Stoic].

172b31-32. Aristotle advises dialecticians to form a systematically ordered collection of other school's positions and opinions which they may draw from to use as premises in refutations (Top 105b12-18).

As noted by Poste (1866, n. 2, p. 136), the Greek word θέσεις (which I translate as positions) is probably used here as a synonym for paradoxes just as Aristotle defines θέσεις in the *Topics* (104b19-29). Thus, I have inserted [paradoxical] before positions. Aristotle is saying that if the interlocutor is of a certain school—say a Peripatetic—the sophist leads him to concede one of the positions of that school that is contrary to the opinion of the many—like that the heavens are made of a fifth element. Again, if the

interlocutor is an Eleatic, the sophist should lead him to concede that motion is impossible. If he is a Heraclitean, the sophist should lead him to concede that one opposite can be its other opposite.

172b33-35. Aristotle's solution to this particular device of the sophist highlights a distinction between the way a sophist leads opponents into paradoxes and the way a dialectician leads opponents to paradoxes. A dialectician will try to show that a paradox is a necessary consequence of the opponent's position on the original dialectical problem (Top 159a18-20). In contrast, a sophist will ask questions regarding paradoxes that the answerer holds which do not follow from the answerer's original position on the dialectical problem. The sophist, in effect, tries to move to a topic of conversation in which he can easily make the answerer look foolish. Aristotle advises the answerer to untie this device by noting that the sophist's question is irrelevant.

172b35. A competitor (ὁ ἀγωνιζόμενος) is probably a synonym for a contentious or eristic arguer (cf. SE 165b11-13, SE 174a12, SE 175a2).

172b36-173a6. Cf. Rhet 1399a29-34 where Aristotle makes the same point.

173a7-9. For Callicles' account of the distinction between what is according to nature and what is according to law, see *Gorgias,* 482e-484b.

173a10-18. In the course of Plato's dialogue (Gorgias 474c-484b), the character Callicles accuses Socrates of using this place against Polus. Polus originally takes the position that it is better to do what is unjust than to suffer what is unjust. According to Callicles,

this is the correct position according to nature: no one naturally desires to suffer injustice. Socrates leads Polus to admit that it is more shameful to commit injustice than to suffer injustice. This position is true only according to law. For the many, seeking to avoid suffering injustice from the stronger, have collectively created the law or custom that doing injustice is shameful, and to that end have indoctrinated the citizens of the *polis* at a young age. Socrates argues that it follows that committing injustice is more evil than suffering injustice by using Polus' admonition. Theoretically, this sophistical place preys on the interlocutor's inability to distinguish what is so according to nature and what is so according to the law or custom. Since what is according to law is contrary to what is according to nature, a sophist may readily find a premise that is according to law to syllogize to the contradiction of what is according to nature.

173a21-22. Again, Aristotle is probably referring to Plato's *Gorgias* (468e-474b) where Socrates maintains the position that it is better to suffer injustice than to commit it, and Polus acts as if he has manifested that Socrates' position is false merely by forcing Socrates to apply the principle to a particularly severe concrete instance. Aristotle, of course, maintains that the better man would choose to suffer injustice (Rhet 1364b21-23).

173a25-27. Plato also portrays this tension in his *Gorgias* (470c-479e). Cf. also *Republic* 344a-c.

Chapter 13: Eliciting Babbling

173a31-40. Chapter 13 discusses the places by which a sophist may induce his opponent to babble. Cf. SE 165b16-17 where Aristotle defines to babble (ἀδολεσχεῖν) as to say the same thing many times. In the *Topics* (130a32-34), he cautions against repetition because it causes obscurity and confusion which he connects to babbling. In this first paragraph, Aristotle claims that a sophist may induce babbling by switching a name for an account (λόγος) in the course of a dialogue.

173b1-5. Aristotle now lays out two different kinds of words where the distinction between the name and its account can leave a fertile ground form for the sophist's devices. The first kind are names that fall into Aristotle's category of relation.

173b5-11. As Waitz (1846, II, p. 554-555) and Dorion note (1995, p. 311), the syntax of this passage is obscure. Nevertheless, its meaning seems clear enough given the examples. Aristotle claims his examples of odd and snub are not "at all relative." Neither odd nor snub imply a reference or point to something else the way in which relatives do. However, when we give an account of odd, we indicate the thing of which odd is a property (affection), i.e., number. Number is given in the account of odd. We say, odd is a number that has a mean. Thus, the sophist reasons that since three is an odd number, and odd is a number that has no mean, then three is a number that has a mean number. He simply replaces the name with the account to produce the babbling. In the same way, we often say snub is a curvature of a nose—thus indicating the thing

of which it is an affection—when we describe it. Thus, if a man has a snub nose, then he has a curvature of the nose nose.

173b12-16. The sophist may give the impression that his opponent's answer results in babbling because he assumes that the term—such as double—signifies by itself. Aristotle's solution to this sophistical device is to claim that "double" in the phrase "double of half" does not signify anything by itself (SE 181b25-182a6).

Chapter 14: Eliciting Solecism

173b17-25. In Chapter 14 (SE 165b20-21), Aristotle discusses the fourth aim of a sophist is to make his interlocutor commit a real or apparent solecism, i.e., "to make the answerer commit a barbarism in his speech on account of an argument." For example, to be forced by argument to use a feminine noun with a masculine definite article or to use a word in the accusative case as a subject of a finite verb is a solecism.

In this passage, Aristotle argues that there is an art of producing apparent sophisms by manifesting that people can mistake feminine for masculine nouns. μῆνις and πήληξ are both feminine nouns in Greek. They should both bear the feminine participle οὐλομένη rather than οὐλόμενος mistakenly applied to them by Protagoras (οὐλομένη is the feminine accusative middle participle of ὄλλυμι (destroy); its masculine counterpart is οὐλόμενος). "Sing of the destructive wrath" (οὐλομένην μῆνιν) is from the first line of Homer's *Iliad*. By Homer saying οὐλομένην μῆνιν, it appears Protagoras erroneously concluded Homer was committing a solecism. If

Protagoras could make such a mistake, then surely the inexperienced are quite susceptible to the same. Since it is possible to make such a mistake, there is an art for producing it.

173b25-31. The statement τοῦτο ἔστι Κορίσκος [it is Coriscus] may appear to be a solecism because the phrase pairs τοῦτο (which is typically neuter) with Κορίσκος (which is masculine).

173b31-39. The neuter demonstrative pronoun τοῦτο can be nominative or accusative, but the masculine οὗτος can only be nominative, and the masculine τοῦτον only accusative. As Aristotle remarks, τοῦτο can stand in for either οὗτος or τοῦτον. The examples illustrate that when τοῦτο is construed with ἔστι, it is equivalent to οὗτος, but when construed with εἶναι, τοῦτο is equivalent to τοῦτον. For ἔστι Κορίσκος, the place of the subject can be filled by τοῦτο or οὗτος indifferently. For εἶναι Κορίσκον, the reader should supply the subject with τοῦτο or τοῦτον.

174a5-9. By 'expressing things that are not alike in a similar way,' Aristotle is referring to the fallacy of figure of diction (cf. SE 166b10-11). There is likeness between the way a person commits the fallacy of figure of diction and the way a sophist induces his opponent to commit a solecism. The fallacy of figure of diction plays on the fact that the same phrase, word, or part of a word may signify different *things*. For example, see*ing* is passive in reality while hitt*ing* is active in reality, and both are active in speech. The similarity of the names may lead one to think that they signify the same sort of reality.

In the same way, a sophist will play on the fact that the same word ending may be common to both the masculine and feminine or nominative and accusative to lead his opponent to an apparent barbarism. The result of the fallacy of the figure of diction is an apparent refutation while the result of an argument leading to a solecism is an apparent barbarism. Their cause is the same: similarities in speech.

174a12-13. Aristotle here marks not only the end of his treatment of solecism from the perspective of the sophist but also his treatment of the sophist's aims in general.

174a13-16. I take it that the last few lines of Chapter 14 mark the beginning of the subject matter treated in Chapter 15. They at least foreshadow Chapter 15. The passage that Aristotle refers to regarding marshalling or arranging questions to escape detection is from the *Topics* (155b1-157a17). Cf. also SE 174a26-29 and note *ad loc*.

Chapter 15: Marshaling and Conducting Interrogation

174a17-20. As mentioned at the end of Chapter 14, Chapter 15 discusses the places or elements (Aristotle uses element is as a synonym for place cff. Rhet 1403a18-19; SE 172b23 and note *ad loc*) a dialectician or sophist may use in the composition of his questions so as to bring about a refutation. These elements are not principles of endoxes but rules for the *manner* of questioning. As Saint-Hilaire pointed out (1837, p. 435), Aristotle does not condemn all of the methods used in Chapter 15 because he prescribes them likewise to the dialectician. Dorion (1990, pp. 41-74) has dealt with this topic in detail. Aristotle's first two examples, length and speed, are fairly self-explanatory.

174a18. Forster thinks the "elements mentioned before" refers to Chapter 1 of Book VIII of the *Topics*. Perhaps, Forster is thinking of the passage at *Topics* 157a1-5 which isn't much more than a paraphrase of the current text. Dorion claims that Aristotle is referring to the entire passage of *Topics* 155b26-157a5, but clearly the majority of that passage deals with how the dialectician may conceal his purpose by means other than simple length.

174a20-24. This unfriendly device seeks to shake the answerer's composure by goading him until he becomes incensed. Shameless behavior and open sophism lead to the answerer's loss of good judgement. This passage underlies the importance for the sophist to determine the context of the argument. Although the *Sophistical Refutations* is ordered to unfolding fallacies that can be used in any discipline, the sophist should be attuned to the circumstances at hand, taking into account not only the audience, but also the intellectual and emotional disposition of his opponent not excluding the consideration of the "group" to which he belongs (SE 172b30ff).

174a24-26. Questions to be used as premises in the same refutation should not be asked one after another because the answerer will easily discern which answers will lead to his refutation. The sophist can hide the logical connection between questions by mixing them in with premises of other arguments—either for or against his desired conclusion. Aristotle advises the dialectician to conceal the logical order of his questions through this method (Top 156a23-26, APr 66a33-b4).

174a26-29. Any method that a dialectician may use to conceal his means or purpose will also be of use to the sophist (cf. Top 155b1-157a17). In the passage, Aristotle notes that the answerer will be less likely to concede premises he views as being close to his refutation, and thus Aristotle advises methods by which the dialectician may conceal his ends and his means in a dialectical interrogation. Questions that lead to a perspicuous argument will be ill-suited for a dialectician—as well as a sophist—because the conclusion of the argument will be too easily detected. The answerer will clearly see which answers he must avoid giving.

The dialectician's use of disguise does not make him a sophist because his goal is a conclusion that *actually* contradicts his interlocutor's previously held position, and that *actually* follows from premises which are *actually* endoxic. A dialectician uses methods of concealment merely to prevent the answerer from declining to accept premises precisely because the answerer sees that they will lead to his contradiction. As Aristotle notes, people are more likely to concede what they think when they are unable to see the implications of their answer (Top 156b8-10). Manifesting the actual consequences of an interlocutor's opinions is not deceptive even if the dialectician conceals his method of bringing about this manifestation. The sophist in contrast is deceptive through and through.

Robin Smith claims (1997, p. 105) there are two stages in deciding what questions a dialectician will ask his interlocutor. With the use of dialectical places and his

systematic lists of endoxes, the dialectician first determines which premises he will use for the refutation of his opponent. This step will "yield a bare-bones argument consisting of undecorated premises and conclusion." Next, the dialectician considers the form and order of the questions that will be answered as premises and adds additional questions used for induction, bulk, concealment, and clarity. Cf. also Top 155b1-28. A sophist, then, will also work through these two stages, although the places that he uses for determining premises will be one of the thirteen sophistical refutations, and he will use additional questions ordered to destabilizing his interlocutor in panic or anger, concealing his goal, confusing his opponent, and so on.

174a30-33. The sophist should sometimes pose his questions in a way that make it seem as though he is looking for an answer contrary to the one he is truly looking for. For example, when a questioner wants the answerer to concede that knowledge of contraries is not the same, the sophists should pose a question like the following: "Is it not the case that knowledge of contraries is the same" (cf. Michael of Ephesus, 1898, p. 111). Other times, a sophist should pose his questions such that he seems impartial to the answer. Aristotle gives similar advice to the dialectician saying that he should conceal whether or not an answer will be used for something else or is asked for the sake of itself, and he more generally advises the questioner to make it as unclear as possible whether he wants a negative or positive answer to a question (Top 156b4-9).

174a37-40. Perhaps, Aristotle is claiming in the current passage that a sophist will treat two things that are similar to one another as if they fell under the same universal when they do not. For, as Aristotle claims (Top 157a17-33), πολλὰ τῶν οὐχ ὁμοίως λεγομένων ὁμοίως φαίνεται λέγεσθαι [many things appear to be said in a like manner when they are not said in a like manner]. How can the sophist bring about this deception? Aristotle explains that when there is no name by which to signify the universal, the questioner should state οὕτως ἐπὶ πάντων τῶν τοιούτων [and so on in all cases of this kind]. It is often difficult to discern what things fall under "cases of this kind," and which do not.

Aristotle exemplifies how to use likeness (ὁμοιότης) to establish a universal (Top 156b10-18). To establish that knowledge of contraries is the same, a dialectician should point out that perception of contraries is the same, and vice versa. This plausible (πιθανός) method of establishing a universal is like induction, but differs from it because the likeness used to establish the universal will not fall under the universal as an instance of it. Cf. also Top 160a37-39.

174b8-11. Aristotle gives an analogous tactic that is used in rhetorical speech (Rhet 1401a3-12).

174b12-18. Aristotle is referring to a situation in which the opponent is defending a paradox. In such a case, he advises the sophist to ask questions regarding reputable opinions that lead to the contradiction of the paradox in the form of, "Does this

reputable opinion seem so to you?" No matter which way the interlocutor answers, the sophist achieves one of his goals. If the answerer concedes the question, the sophist will syllogize to his contradiction. If the answerer denies the question, then he will have affirmed that a reputable opinion does not seem to be the case, another paradox. Finally, if the answerer tries to thread the needle by denying the question but conceding that the opinion is reputable, something looking like a refutation will come about because it will appear to the audience that he only denied the question to avoid being refuted. This method becomes more plausible when considered in conjunction with the places useful for inducing a paradox laid out in Chapter 12. For instance, the sophist will consider the group to which his opponent belongs and bring up paradoxical positions which that group holds (SE 172b29ff). If his interlocutor accepts the paradox, then the sophist will place him on the horns of this new dilemma, forcing him either to compound his espoused paradoxes, be refuted, or look as if he has been refuted.

174b17. As was said earlier, given Aristotle's wording, it is clear that disreputable opinion (ἄδοξος) is a synonym for paradox (παράδοξος). Cf. SE 172b10 and note *ad loc*.

174b19-23. Just as the sophist should look in the answerer's positions for opinions contrary to other positions he holds, so also should he look for positions that are contrary to the positions of those people with whom the answerer agrees. Michael of Ephesus considers these people to be the philosophers who the answerer reveres (1898, p. 115). For instance, when the sophist is arguing against a Platonist, he will attempt to

lead his opponent to admit something that is contrary to the Platonic teachings. For if the audience believes that the answerer cannot even maintain the positions of his master, then he will appear to be responding not in the way that he thinks, but simply as to maintain his position at all costs. The same can be said about looking for positions held by the interlocutor that are contrary to the positions of reputable people, or positions of those like the interlocutor, or positions of the many or all people. For in all these cases, the audience will assume that the answerer holds their positions, and thus, showing that his positions are in contradiction with one of those positions is almost as good as his explicit refutation. Cf. Rhet 1398b21ff where Aristotle treats of this tactic in the rhetorical argument.

174b27. The *Mandrobulus* may be a dialogue of Speusippus (cf. Taran, 1981, p. 242-246).

174b30-33. According to Michael of Ephesus (1898, pp. 118-119), Lycophron was called upon to give a eulogy for the lyre, but was unable due to lack of inspiration. Instead, he gave a eulogy to the constellation Lyra. Cf. also Rhet 1401a15-16.

174b38-40. Aristotle gives the same advice to the dialectician (Top 158a7-13).

Chapter 16: Why Studying Sophistic is Useful

175a1-4. The beginning of Chapter 16 marks the primary division of the *Sophistical Refutations*. The first half of the work treated the subject matter from the perspective of the sophist: Aristotle considered the sources of the primary and secondary sophistical aims and as well as the manner in which the sophist should conduct his interrogation.

Aristotle now gives his intention for the remaining part of the work: he will take up the subject matter from the perspective of the answerer by treating how the answerer should untie sophistical refutations, why this method of untying will be sufficient, and what are the uses of the study of sophistical refutations for the philosopher. Aristotle begins with the last item of his list—i.e., to uses of this study for the philosopher—in Chapter 16.

175a5. Studying the sophistical art is clearly useful for the dialectician who wishes to avoid being taken in by sophistical arguments. Aristotle is concerned with showing here why it is useful for the philosopher too. Cf. Meta 1004b17-26 where Aristotle distinguishes the philosopher from the dialectician. The dialectician employs his testing art concerning the same kinds of the things that the philosopher *knows*. A dialectician can successfully employ his testing art in matters in which he does not have scientific knowledge because his arguments do not reason from the proper principles of a science but rather from his opponent's answers and from common principles and places. The dialectician uses his testing art to manifest that an opponent who pretends to know does not know because the opponent does not know things that anyone who truly has knowledge would know (cf. SE 172a21-34 and notes *ad loc*).

175a6-12. For a discussion of the philosophical importance of distinguishing different senses of names and the kinds equivocation, cf. Appendix II: Equivocation and its Fallacy. Cf. also SE 165a4-6, where Aristotle claims that the one place most naturally

suited and common for the production of sophistical refutations is based on names. Further, the distinction of the senses of words exemplifies a more universal use of sophistic. Familiarity with fallacies enables a student to recognize many distinctions necessary to the philosopher, such as the distinction between simply and in a certain respect or between what is accidental and what is through itself. Cf. Introduction III.III Two Uses Proper to Sophistic for a discussion of both of the uses laid out in this paragraph.

175a12-14. Aristotle begins by saying that he will state two uses, and then adds this third use. This discrepancy seems to indicate reputation's secondary importance. Aristotle places measured importance on maintaining one's reputation elsewhere: "It is especially with matters of honor and dishonor, then, that the great souled man is concerned. And he will take pleasure in a measured way in great honors and those that come from serious human beings, on the grounds that he obtains what is proper to him or even less—for no honor could be worthy of complete virtue, but he will nevertheless accept it inasmuch as they have nothing greater to assign him, " (NE 1124a4–8, trans. Bartlett). This point in discussed more thoroughly in Introduction III.III Two Uses Proper to Sophistic.

175a14-16. Aristotle is referring to a situation in which an interlocutor encounters a sophistical refutation, is not fooled by it, and thus objects to the argument, but without being able to say precisely what is wrong with the argument. Such a situation is not

dangerous to the interlocutor primarily because the interlocutor knows, at least in some vague way, that there is no genuine refutation. However, the argument is dangerous insofar as the audience will likely believe he is objecting to the argument without grounds because—being uneducated about fallacies—he cannot articulate how the apparent refutation errs. Compare this passage to Top 160b17–22, where Aristotle advises dialecticians to avoid maintaining disreputable opinion (ἄδοξος) because they will gain a reputation of maintaining theses merely for the sake of argument which will ultimately undermine their authority.

175a17-20. The Greek word πλεονεξία which I translate as "advantages" Forster (1955, p. 87) translates a "fraudulent methods" and Pichard-Cambridge (1928, p. 297) as "forms of dishonesty". According to LS, the word may have a pejorative sense, though not necessarily. Dorion thinks the passage refers to the methods described in Chapter 15 (1995, pp. 327-329) and argues—convincingly, I think—that most of those methods are neutral. The sophist may use such methods with ill intent, but the dialectician in fair play. However, given the context of passage, it seems possible that "advantages" could refer to the sophistical devices used for attaining the sophist's secondary aims. Certainly, Aristotle's emphasis on the importance of training to recognize and challenge devices in the opportune moment applies equally well to the places used for the sophist's secondary aims.

175a20-30. To be able to answerer sophisms in the opportune moment, one must not only know the various sophistical refutations, but must be trained in dealing with them. Byrne notes (2001, pp. 413-414) that "analyze" (a28) refers to the process of geometrical analysis. As the geometrician sometimes cannot reconstruct the figure which manifests the intelligible connection of what is given and the conclusion in a geometrical problem even after he has solved the problem, so too a dialectician may not be able to untie a sophism even if he knows the kind of fallacy that the sophism commits. Aristotle's emphasis on the importance of training indicates that to acquire the third use's benefits, maintaining one's reputation, the philosopher should sustain a habit of solving sophisms.

Chapter 17: Apparent Untying of Fallacies

175a31-41. An apparent solution to a sophistical refutation is sometimes superior to a true solution. Sten Ebbesen comments (2011 p. 78), "although not explicitly mentioned, the audience is present in this quotation. What Aristotle says indirectly is that the audience may not be able to appreciate a rigid lesson in what went wrong in our eristic (contentious) opponent's argument, and our first job in the disputation is to prevent the audience from believing that we have been refuted." Ebbesen identifies why a dialectician would use an apparent solution as opposed to a genuine one: the audience just cannot follow the subtle distinction necessary for an accurate refutation. Additionally, Ebbesen's comment underscores the importance of the audience. In this

context, the answerer already knows that he has not been refuted, so he is not in danger of being deceived by the apparent refutation. An answerer would not use this tactic for the sake of the questioner because he is characterized as contentious and therefore not principally concerned with the truth. The only remaining party is the audience. Accordingly, we can take the following methods described by Aristotle in this chapter as ordered primarily to shaping the audience's opinion.

Aristotle advises using apparent solutions for apparent refutations, and not for genuine refutations. In fact, the whole of Chapter 17 describes methods for responding to arguments that are specifically apparent, rather than genuine. Aristotle holds that the great souled man "cares more for the truth than what people think" (NE 1124b27-29, trans. Crisp). Still, regard for the truth allows the philosopher to use apparent solutions. As Sten Ebbesen puts it (2011 p. 77), "if our antagonist uses counterfeit money, we are allowed to pay back with the same coin." This tactic may be used, therefore, to prevent the appearance of refutation when the true untying of a false refutation is too difficult for the audience to understand. As Aristotle says, we should distinguish for no other reason except that the apparent refutation looks like a refutation (SE 175a40).

Notice that the analogy which Aristotle offers in the first line of the chapter gives a justification of this practice of untying fallacies "endoxically." In dialectic, it is permissible to lead an opponent from his own opinions to a conclusion that is untrue. Still, such activity is in service to the truth insofar as the dialectical syllogism shows that

an interlocutor's opinions are truly not in harmony with one another. Similarly, untying a sophistical argument with an apparent solution can still be in service to the truth in so far as a false refutation that appears to be a refutation will no longer appear to be a refutation.

175b1-6. When the answerer appears to be refuted, truly or falsely, he can claim the refutation is the result of equivocation even if it is not. This tactic may make the refutation uncertain in the eyes of the audience when they cannot judge if he is correct.

175b7-14. In Plato's dialogue *Euthydemus* (295a-296d), the sophist Euthydemus becomes angry at Socrates for not answering in terms of "yes" and "no," but by asking questions and making distinctions in his answers (295d1-2): κἀγὼ ἔγνων αὐτὸν ὅτι μοι χαλεπαίνοι διαστέλλοντι τὰ λεγόμενα, βουλόμενός με θηρεῦσαι τὰ ὀνόματα περιστήσας [I realized he was annoyed with me for making distinctions in his statements because he wanted to ensnare me with his words]. In general, a sophist hopes his interlocutor will respond with a simple "yes" or "no" to his questions. For example, if the sophist asks, "Are things that need be good?"—if the answerer responds with a simple "yes" or "no"—the sophist will be able to get him into a contradiction by using both meanings of "things that need be" (cf. SE 165b34ff). However, if the answerer responds "If you mean by 'things that need be,' what is necessary, then no, but if you mean by 'things that need be' what ought to be, then yes," then the answerer

will have alluded the equivocation. The sophist wishes to avoid this outcome by demanding a simple "yes" or "no" answer.

Although the sophist makes this demand, the dialectician may also do the same. Aristotle claims (Top 158a14ff) that dialectical premises should be phrased such that a person can answer them with a simple "yes" or "no." Moreover, he repeatedly emphasizes that the answerer should reply with a simple "yes" or "no," *so long as the questions are unambiguous* (SE 175b14, Top 160a30-33). In dialectical disputation, this rule enables dialectic to proceed without the answerer derailing the conversation with tangents and elliptical replies. Socrates himself implies this rule when he exhorts the character, Polus, to answer with a simple "yes" or "no" (*Gorgias*, 475e1).

175b15-19. I do not retain Ross' emendation to the text: ἔλεγχον <ἔλεγχον> εἶναι which he justifies through the Λ manuscript of Michael Ephesus. I translate the original ἔλεγχον εἶναι with Boethius and the other English translators. Cf. Ross, 1958, p. 224 and Boethius, 1975, p. 36.

Concerning the meaning of the text, Aristotle is pointing out the necessity of making distinctions when faced with ambiguous questions. If the answerer does not recognize specific questions as ambiguous, then he will not be able to avoid refutation because no matter which way he answers a skilled sophist will have handy tricks designed to bring about a sophistical refutation from either answer.

175b19-27. Aristotle disagrees with a proposed solution to the fallacy of equivocation which adds a demonstrative pronoun as a determinant to an equivocal word to clarify its distinct meaning. He argues instead that "this Coriscus" and "Coriscus" are equally equivocal. When the proponents of the solution argue that "this Coriscus" does not have the same meaning in the statement "this Coriscus is unmusical" as it does in the statement "this Coriscus is musical," Aristotle responds that neither does "Coriscus" itself have the same meaning in both cases; the proposed solution makes no difference.

175b28-32. Aristotle cautions the respondent not to let any ambiguity go by without clarification even when he does not think the argument will turn on the ambiguity. When faced with an ambiguous question, the answerer has a right to say that he does not understand and await clarification from the questioner, or he can affirm or deny with the addition of a relevant distinction of the ambiguous word or phrase.

175b34. The Greek word πυκνότης (which I translate as "prevalence") would be more literally translated as "thickness" or "density." I choose my translation to avoid the possibility of conveying an unhappy metaphor with a more literal translation.

175b38. The passage which Aristotle is referring to is from the *Topics* (160a17-34).

175b39-176a11. Aristotle draws a likeness between the fallacies of equivocation and amphiboly and the fallacy of making two questions into one, noting that the former two fallacies do not follow if the latter does not follow. For example, when a sophist asks the question "Are things that need to be good?" and the answerer responds "Yes," then the

sophist functions as if his interlocutor had affirmed two questions: "Are necessary things good?" and "Are things that ought to be good?" Thus, one way of looking at any fallacy based on ambiguity is to reduce it to the problem of making many questions one.

Ultimately, this reduction does not violate the integrity of the fallacies from speech as individual fallacies. Fallacies are distinguished by their causes which are two: "*causa apparentiae*" and *"causa non existentiae."* The fallacies from speech have a different cause of appearance than the fallacy of making two questions one. On the one hand, the fallacy of equivocation is a fallacy from speech and is based on the likeness of the vocal sound of the equivocal word. On the other hand, the fallacy of making two questions one is based on the likeness between a question to which a simple yes or no answer provides one declaration and a question to which a simple answer provides two declarations.

As Schreiber notes (2003, p. 161), Aristotle is acting here with the opposite tendency of modern logicians, most of whom try to reduce all fallacies to fallacies due to language. Aristotle, in contrast, is reducing the two most prevalent fallacies from speech to a fallacy outside of speech.

175b39. Reading ἐποίει, MpS. Cf. Ross, 1958, p. 225.

176a12-18. In the *Topics* (160a24-28), Aristotle takes a different position. There he claims that in the situation when both senses of the term are either true or false, one ought to

answer simply and only distinguish when one sense is true and the other false. Sympathizing with Aristotle's oscillation on this point is easy. Maintaining a proper balance between the desire for clarity with the necessity of forming a cohesive dialogue is obviously difficult. Whatever the optimal method in this particular circumstance may be, it is clear that one must distinguish the meanings of a word or phrase when it is true in one sense, but not in another.

176a19-21. Cf. SE 164b25

176a23-27. A side-refutation (παρεξέλεγχος) appears to be a refutation of one of the interlocutor's positions, but not his position on the established dialectical problem (cf. also SE 181a21 and Top 112a8). The side-refutation was not given by Aristotle as one of the sophist's goals—unless he included it under refutation. While it may sound strange that a sophist does not desire all refutations equally, if an interlocutor is refuted on a certain point, but he maintains the central issue of the argument consistently, he has not lost the argument. It is helpful to keep in mind that the apparent refutation is only a means to a higher end for the sophist: appearing wise. Conquering the central issue manifests the sophist's ability to refute more than a refutation on a side issue, and thus gives him a greater appearance of wisdom. Nonetheless, the sophist will take what he can get, and the answerer should avoid even the side-refutation.

Whenever the answerer is asked about a reputable opinion which does not lead to his contradiction, he should affirm it to avoid a side-refutation and to avoid stating

something paradoxical. If the affirmation is out of the question because it would lead to his refutation, then the answerer ought to reply, "it seems so." In doing so, he will neither state something paradoxical, yield a position vulnerable to attack, nor affirm a statement that will lead to his contradiction.

176a27-33. With this slick advice, Aristotle is saying that if a sophist asks a question that will quickly lead to the answerer's contradiction, he can avoid answering it by stating that it begs the question. For premises that are near the conclusion often appear to be identical to the conclusion itself. In the *Topics* (162b35-163a29), Aristotle unfolds five ways of concealing a conclusion among one's premises without awakening the suspicions of the answerer.

176a33-35. In the process of inducing a universal assertion that has no name, the dialectician or sophist will ask "Is it so in all like cases?" Cf. Top 157a21ff, SE 174a37-40 and note *ad loc*. Aristotle suggests one apparent solution to the argument is for the answerer to claim that the sophist is applying "all like cases" in a way that the answerer did not concede.

176a36-37. The Greek word διορισμόν, translated here as "definition," may be the masculine accusative singular of διόρισις meaning distinction, but διορισμόν may also be the masculine accusative singular of διορισμός which I elsewhere translate as "definition." Barnes, Pickard Cambridge, and Forster think this word refers to the distinction of the fallacies given at SE 168a17ff. The term more likely refers to the

definition of refutation given at SE 165a1-4 and unfolded as it pertains to the solution of fallacies at SE 168a20ff. Maurus (1885, p. 610) and Dorion (1995, p. 335) share this interpretation.

In this reading, Aristotle's advice is that in the case where all the previous tactics cannot be employed, one can state that a proper refutation has not been reached while laying out its full definition with all of its qualifications. The merits of this tactic are twofold: in the first place, the answerer portrays himself to have a command over the discipline, and in the second place, he will confuse most questioners and most of the audience who will not be able to discern whether or not his criticism is accurate on such short notice.

176a38-b7. Whenever a question is indistinct and can be taken in a number of ways, the answerer should never supply what he believes to be its meaning in his head. Rather than conceding with a simple "yes" or "no," he should respond by distinguishing, e.g., "If we use 'of the Athenians' (Ἀθηναίων) as a possessive genitive, then anything 'of the Athenians' is a property of the Athenians. If we use 'of the Athenians' as genitive of a divided whole, then everything that is 'of the Athenians' is not their property."

176b8-11. It is useful for the answerer to overcomplicate the argument intentionally. Thus, if he is going to concede two statements (A) and (B), but (A) being so implies that (B) is so and not vice versa, then he should concede (B) before he concedes (A). Doing so necessitates that the questioner secure both premises, and thereby it makes his task

more complicated. To my mind, Aristotle is not in any way referring to the fallacy of assuming the consequent although the fallacy's logical structure is similar to the situation described here.

176b11-13. Aristotle may be referring to the dialectical place that uses the absence of a contrary to manifest two things are different. One way to show that a word has two different meanings, for instance, is to show that at times the word refers to something that has a contrary and at other times it refers to something that does not have a contrary (Top 106a10-21).

176b18. The Greek word I translate as "judgment" here is γνώμη. In the *Rhetoric* (1394a22ff), Aristotle defines this word as a "general statement that concerns practical conduct." He claims that since enthymemes are syllogisms dealing with practical subjects, the judgment is a premise of the enthymeme considered apart from the rest of the argument.

Chapter 18: Untying Fallacies in General

176b29-33. In the fifth book of the *Metaphysics* (1124b27-1125a2), Aristotle gives several meanings of false (ψευδής). Two of those meanings are respectively connected with the two instances of a false syllogism given here. Sometimes false is used to signify a *statement* which does not correspond to reality because it predicates something of something about which it is not true. For instance, the statement "a circle is three-sided" is called false. Aristotle's first instance of false syllogism corresponds with this meaning

of false because it concludes or *uses* a false statement. However, sometimes, false is used to signify a *thing* insofar as it appears by nature to be other than it is. For example, fool's gold or a dream are called false with this meaning (cf. Meta 1124b22-25). Aristotle's second instance of a false syllogism is called false in this meaning because it deceptively appears to be a syllogism.

While Aristotle says here that a *syllogism* may be false in two ways, in the *Topics* he says an *argument* (λόγος) is called false in four ways: "One way is when it appears to come to a conclusion though it does not do so (which is called a contentious deduction {συλλογισμός}). Another way is when it comes to a conclusion but not one relevant to what was proposed (which happens most to those leading to the impossible). Or, it comes to a conclusion relevant to what was proposed, but yet not in accordance with the appropriate study (and this is when it appears to be medical though it is not medical, or geometrical though it is not geometrical, or dialectical though it is not dialectical), whether what follows is false or true. In another way, if it is concluded through falsehoods. The conclusion of such an argument will sometimes be false but sometimes true: for a falsehood is always concluded through falsehoods, but it is possible for a truth to be concluded even though not from truths, as was also stated earlier" (Top 162b3-15, trans. Smith).

Aristotle's first and last meanings of false argument resemble his two meanings of false syllogism, though his fourth meaning of false argument clarifies his first

meaning of false syllogism. Aristotle's first meaning of false syllogism is that which "has syllogized the false" (συλλελόγισται ψεῦδος). One might believe this characterization encompasses only syllogisms that conclude in a false statement. Instead, it also includes arguments that conclude *through* falsehoods; the last meaning of false argument corresponds to this meaning. Such a "syllogism" may or may not have a false conclusion. That is, a syllogism is false because its premises are false, not because it has a false conclusion. This reading of Aristotle is confirmed when further down the paragraph (176b36-177a2) we read that some [false] syllogisms—that do indeed syllogize—have a true conclusion. Moreover, Aristotle shows in many other places that it is possible to syllogize to a true conclusion from false premises (APr 54a1-a4, APo 88a20-21, Top 162a11). When dealing with such a syllogism, the interlocutor's only means of rebuttal is to attack the premises because the conclusion is unassailable on account of its truth. In contrast, whenever the conclusion is false, the answerer can untie the argument either by doing away with one of the premises or by showing that the conclusion is not true.

Aristotle's middle two meanings of false arguments given in the *Topics* have no corresponding meaning to false syllogisms because they are false not *as* syllogisms, but as being not to the point—which can make an argument false but not as a syllogism—or as being outside the discipline at hand.

176b33-36. Foster, Tricot, and Pickard Cambridge all consider "the untying just mentioned just" to be referring to the apparent untyings given in Chapter 17. As Dorion notes, however, it is unlikely that the apparent untyings explained in Chapter 17 could also be called corrections (ὀρθὴ) untyings (SE 176b34-35). It is more likely that Aristotle is referring to the untying mentioned at SE 176b29-30: "[exposing] from what sort of question the falsehood ensues."

176b36-177a6. In the *Topics* (160b23-40), Aristotle explains what it is to do away with (ἀναιρέω) a premise—or a question that leads to a premise—when untying false arguments. Rejecting any premise whatsoever will not appropriately untie an argument, even if the premise is false. Aristotle uses the following argument as an example:

1) Whoever is sitting is writing
   Socrates is sitting
   Socrates is writing.

In Aristotle's imaginary state of affairs, Socrates is neither sitting nor writing when this argument is made. Pointing out that Socrates is not sitting, however, does not untie the argument because when Socrates is sitting the argument will still be false. If a dialectician does away with the second premise, then the argument will appear to follow in some cases. Since the argument is always false, it must be untied in all cases (πάντως), and thus be shown to be false in all cases. There is one particular premise

that should be done away with—that whoever is sitting is writing—if a dialectician is to untie the argument properly.

On the one hand, by manifesting that the conclusion of an argument is untrue, one shows either that the argument is not syllogistic, or that one or many of the premises are untrue, or both. On the other hand, Aristotle claims in Chapter 24 that showing that a false syllogism's conclusion is false is not a true untying unless it exposes that by which the argument is false. For example, arguing that motion is real is not a solution to Zeno's paradoxes because it does not reveal what is erroneous in Zeno's arguments. Poste takes Aristotle to be flatly contradicting himself on this point (1866, n. 2, p. 145). However, given the passage from Top 160b23-40 discussed in the above note, we can see that in some cases demonstrating that a conclusion is false will also demonstrate the false premise that is the root of certain false syllogisms. Let us repeat Aristotle's example.

1) Whoever is sitting is writing.
   Socrates is sitting.
   Socrates is writing.

In the situation where Socrates is sitting, manifesting that Socrates is not writing also manifests that whoever is sitting does not need to be writing. In some instances, doing away with a conclusion also does away with the premise that is the root of a falsehood because the other premise is undoubtable. Whenever one of two premises in a syllogism

is undoubtable, and one shows that the conclusion is false, one has therefore shown that the remaining premise is false.

177a6. Cf. SE 176b36ff

177a6-8. Cf. SE 175a20-30 and note *ad loc*.

Chapter 19: Untying the Fallacies of Equivocation and Amphiboly

177a9-12. In Chapter 19, Aristotle discusses how the answerer should meet as sophist who tries to refute him using the fallacies of equivocation or amphiboly. In general, he should meet the fallacies of equivocation and amphiboly by stating in what sense he affirms and in what sense he denies each question, or by stating in what sense the conclusion follows and in what sense it does not.

Commenting on the current passage, Dorion contradicts Aristotle by claiming that the ambiguous phrase in this example is "obviously" (*manifestement*) in the premise (1995, n. 282, p. 337). He cites Plato's *Euthydemus* (300bff) where the question "Is speaking of the silent (σιγῶντα λέγειν) possible?" is used as a premise of a sophistical refutation regardless of whether the answer is "yes" or "no." Cf. also SE 166a12-13 where Aristotle first lays out his "speaking of the silent" example. The Greek σιγῶντα λέγειν can mean either that "silent things speak" or "to speak about silent things." On the one hand, if the interlocutor answers yes, the sophist uses the answer to form the premise, "it is possible for silent things to speak." On the other hand, if the interlocutor answers no, then the sophist takes the answer as the premise that "it is not possible to

speak about silent things." Thus, with this rendition of the argument, the amphiboly is in the premises. That all said, there is no reason to contradict Aristotle here because nothing prevents this ambiguity from showing up in a conclusion as in the argument from Poste (1866, n. 1, p. 147):

1) To speak of stones is possible.
   To speak of stones is to speak of the silent.
   Therefore, to speak of the silent is possible.

177a13-15. Aristotle does not give us much context for this example. Poste interprets the Greek μὴ συνεπίστασθαι τὸν ἐπιστάμενον (which I translate as "the one who knows not knowing fully") as ambiguous through its accusative infinitive construction (1866, n. 2, p. 60). The phrase has an ambiguity directly parallel to that of "speaking of the silent." This interpretation places the example under the fallacy of amphiboly. Dorion argues instead that it is unlikely to be a case of amphiboly since Aristotle has already given an example of this kind of fallacy in this chapter (1995, n. 289, p. 339). In Dorion's mind, the question works on the equivocal meanings of knowing: one can know, in a sense, what one is not currently thinking about or one can only know what he is currently thinking about. Dorion's reading is reinforced by Aristotle's advised clarification of the question given below (SE 177a28): "yes, but they do not know in this way (οὕτως)."

Regardless, Aristotle's overall point in this paragraph is clear. The ambiguous word or phrase may be any one of the terms in a syllogism. If it is the middle term, then

the ambiguity will only lie in the premises, and not in the conclusion. If the minor or major term is ambiguous, then the ambiguity will appear in the conclusion.

177a16-17. Perhaps, Aristotle means that the questioner should obtain the explicit affirmation of the conclusion, and not only the premises of the refutation. This way, at least in words, the answerer will contradict himself. Taking Aristotle's previous example, a sophist asks if to speak of the silent is possible. The answerer claims that the silent cannot speak, and then the sophist obtains affirmation of the following two premises: a) to speak of stones is possible and b) to speak of stones is to speak of the silent. The sophist should force the answer to state *explicitly* what follows from these two premises: to speak of the silent is possible. By stating the conclusion, the answerer produces more of an appearance of refutation. In this way, the answerer will bring about the audible effect of contradicting himself, although he has done so only according to speech.

177a17-18. This example is based on exactly the same syntactical structure as the "speaking of the silent" example. The Greek phrase τὸν τυφλὸν ὁρᾶν uses the accusative infinitive construction that can mean either "the blind one sees" or "seeing the blind one." I use the analogous ambiguous English phrase "sight of the blind."

177a18. "Contradiction" is the specific difference in the definition of refutation (SE 165a2-3).

177a23-24. Aristotle discusses his "things which need to be" example at SE 165b35.

177a24-26. The Greek phrase adds the masculine singular demonstrative pronoun τόνδε. By adding the demonstrative τόνδε before σιγῶντα, the answerer specifies that σιγῶντα refers to the object of the speaking and, with the help of negation, he rejects the absurd interpretation where silent things are understood as the subject of the speaking. With these clarifications, the answerer shows that the only question he is ready to affirm is "Is it possible to speak of silent things?"

Chapter 20: Untying the Fallacies of Composition and Division

177a33-35. Chapter 20 treats of how one can untie fallacies of composition and division. In all cases, the untying or solution involves pointing out that the sophist is taking a proposition in a divided way when the proposition was conceded or follows only in a composed way, or vice versa.

177a36-37. The argument to which Aristotle refers may be exemplified in the following manner:

1) He was struck with what you saw him being struck with.
   What you saw him being struck with was your eyes.
   He was struck with your eyes.

The fallacy is based on the two different ways to take the first premise: He was struck with what you saw him being struck with. In English, if the second “with” is taken in combination with “struck,” the first premise is likely to be accepted by an interlocutor. However, for the fallacy to follow, the second “with” in the first premise must rather be

divided from "struck" and taken together with "saw." In Greek, the ambiguity depends on whether one takes the dative relative pronoun ᾧ with εἶδες or τυπτόμενον.

177a37-38. This example plays on the same ambiguity going in the other direction:

2) Your eyes are what you saw him being struck with.
   You saw him being struck with what he was struck with, i.e., the stick.
   Your eyes are what he was struck with, i.e., the stick.

177a38-b9. Aristotle here gives his reason for the distinction between the fallacies of composition and division and the fallacy of amphiboly. Aristotle says questions of composition and division "have something of the questions from amphiboly" because both are due to mixing up different perceived meanings in speech. The fallacies, however remain distinct. In the fallacy of amphiboly *one* speech or phrase has a twofold meaning—although only one meaning is accepted—but in the case of fallacies of composition and division there are *two* different phrases—though they appear to be the same—each with its own meaning (cf. SE 168a24-34 and notes *ad loc*).

This passage appears to contradict other passages (SE 165b29, SE 166a35) where Aristotle implies that the fallacies of composition and division rely on the same speech. To my mind, Aristotle calls the different speeches or statements (λόγοι) "the same" in those passages the way he calls sophistical refutations "refutations." Aristotle calls two statements that use the same words in the same order "the same" because they appear to be the same.

So why does Aristotle say these λὸγοι must, in fact, be different? The statements have different pronunciations. To explain his meaning, Aristotle uses an analogy. *Two* Greek words that share the same letters and order but differ in accent—technically in their aspiration—are ὄρος and ὅρος. ὄρος with the soft breathing mark signifies a wooden implement used for pressing grapes (cf. LS entry). ὅρος with the rough breathing mark signifies a limit or boundary. I have taken the liberty of replacing ὄρος and ὅρος with the two English words r*e*cord" and "rec*o*rd. Point being that while two words can be identically written, they are not the same word if they have different meanings according to different pronunciations. So just as we should not say two words with the same letters and order are the same if they are pronounced differently, neither should we say that a statement taken in composition is the same as a statement taken in division.

177b6. Aristotle indicates that in the past words were written in Greek without accents and breathing marks, but in his time, writers had begun to use markings to distinguish between words in written works.

177b10-26. There is some obscurity in this paragraph because Aristotle unties some of the fallacy's examples, but others he leaves tied-up. For instance, Aristotle offers his solution to the sophistical conclusion that you have come to be now because it is true now that you have come to be. For when one divides "now" from "you have come to be" it signifies something different from when one takes it in composition with "you

have come to be" (SE 177b20-22). Yet in his trireme example, he offers no solution (SE 177b12-13).

Michael of Ephesus claims that Aristotle trireme example refers to the following argument (1898, p. 146):

1. Questioner: Are you now in the Piraeus?
   Answerer: Yes
   Questioner: Do you know about the triremes which are in Sicily?
   Answerer: Yes
   Questioner: Therefore, you know about the triremes in the Piraeus in Sicily.

177b27-34. In the final paragraph of the chapter, Aristotle challenges an untying alternative to his own untying of the cithara example. The proposed alternative claims the answerer did not concede that one will do what he is able to do "in every way." Aristotle's first criticism of this untying is that it does not apply to all fallacies from composition, but only to this instance. Aristotle employs this principle elsewhere (SE 179b11-12). Aristotle's second criticism is that it does not apply to "all ways of questioning" (πάντως ἐρωτωμένοις) because it does not actually give the reason of why the fallacy fails to follow. If the questioner were to make his original question, "Can you do as you are able to do in every way?" the fallacy could still follow, and the proposed solution would not untie the fallacy. Certainly, the answerer, who would concede the former question, might not concede this new one. Nonetheless, the rephrased question remains an endox and will likely be accepted by many answerers. Thus, the proposed solution may solve the sophism towards or relative to (πρὸς) an

opponent, yet it does not solve the sophism relative to the argument (πρὸς τὸν λόγον). It is not the question's lack of "in every way" that makes the question appear to be so while not being so. Rather the true solution makes clear that "to be able to play the cithara while not playing the cithara" has a different meaning in composition from what it has in division. The answerer concedes the phrase with the divided meaning, but the questioner uses the composed meaning. This account implies that a true solution explains why the premise appears to be an endox while not being an endox. More generally, a true solution gives the reason why the argument does not truly refute in any instance (cf. SE 179b17-26 note *ad loc*).

Aristotle gives three criteria here for judging whether proposed solution is also a proper solution, and I have argued that he implies a fourth criterion.

1. Every proper solution of a fallacy applies to all fallacies that fall under the same place
2. Every proper solution applies to all ways of questioning
3. Every proper solution is relative to the argument (πρὸς τὸν λόγον) and not only the interlocutor.
4.

Therefore, every proper solution gives the reason why the fallacy does not refute.

Chapter 21: Untying the Fallacy of Accent

177b35-178a2. Chapter 21 is Aristotle's limited treatment of how to untie the fallacy of the accent. The fallacy was first discussed at SE 166b1-9. Obviously, it is not the most dangerous fallacy. Aristotle's made up example plays on the distinction between οὗ (which is a genitive singular relative pronoun) and οὐ (which is a negative adverb). In

the example, two different words with two different significations, distinguishable merely by their accent and use, are confused.

Chapter 22: Untying the Fallacy of Figure of Diction

178a4-5. In this chapter, Aristotle discusses untying the fallacy from figure of diction which he here describes as the fallacy from being said in the same way (παρὰ τὸ ὡσαύτως λέγεσθαι). He has also described the fallacy as from common-form (ὁμοιοσχημοσύνη, SE 170a15). Aristotle originally introduced the fallacy at SE 166b10-19. The sophistical place that underlies the deceptive nature of the fallacy is the proposition: What is expressed in the same way is the same thing (SE 166b11). Whenever two things are expressed in the same way, and they are not the same, a person may likely consider them the same. The fallacy plays on this tendency. For this reason, Aristotle claims that the fallacy's trick occurs through a likeness in speech (SE 169a30-169b2).

1778a5-8. Swanson is incorrect when she claims that the fallacy of figure of diction results in a category mistake "in Aristotle's technical sense of category" (2017, p. 182). "The kinds of categories" (τὰ γένη τῶν κατηγοριῶν) should be interpreted as more general than the strict notion of categories which Aristotle lays out in the *Categories* (cf. Albertus Magnus II, 1890, tr. 2, c. 5, p. 675, Ebbesen, 1981, I, p. 8, and Dorion, 1995, p. 347-348). While knowledge of these 'categories'—the most universal univocal genera—is certainly included in the knowledge useful for untying this fallacy, not every instance

of the fallacy can be solved by a distinction of 'categories' in the strict sense. Category here has the sense of common predicate. Sylvester Maurus accurately claims (1885, p. 616) that the fallacy *fundatur in eo quod quae non sunt eadem significantur simili figura dictionis* [is founded on the fact that things which are not the same things are signified by a similar figure of diction]. Cf. also (ps) Aquinas, 1976, c. 10. When a likeness in the way things are expressed leads one to think there is a likeness in *what* is expressed, one commits a mistake based on the figure of diction. If we have things placed in their proper categories—common predicates—then we are less likely to be fooled when a sophist expresses something in one category with a form similar to the way he expresses something in another category. Sometimes masculine things are signified by feminine nouns and vice versa (SE 166b11-12). Masculine and feminine animals belong to the same 'category' in the word's strict sense, but can clearly be said to be in different categories in the less strict sense of the word. Again, sometimes a universal is signified in the same way as a particular and thus is considered as particular (SE 178b36ff). Yet the fallacy also involves mistakes such as confusing a passive reality for an active reality because it is signified actively. Confusing active and passive realities result in 'category' mistakes in the sense of most universal univocal genera.

For Aristotle, the knowledge of the genera of categories may prevent one from falling victim to this fallacy, although the fallacy is from speech. It is knowledge of a distinction in *things* that prevents a deception through a likeness in *speech*.

178a9-11. As Michael of Ephesus first pointed out, the following argument is not an instance of the previously described confusion between the category of substance and the categories of relation and quantity. Instead, it is an instance of a fallacy of the figure of diction.

Although 'to see' (ὁρᾶν) is grammatically active just as is 'to act upon' (ποιεῖν), seeing is an instance of undergoing (πάσχειν), not acting upon (ποιεῖν). The grammatical similarity of 'to see' and 'to act upon' leads to the confusion that they are the same sort of actions. In Aristotle's example, the sophist persuades his interlocutor to accept the endox that it is impossible to act upon and to have acted upon the same thing in the same respect. Apparently, the answerer concedes this supposition because acting upon is a movement (κίνησις), as opposed to a complete activity (ἐνέργεια, cf. Meta 1048b16-36, DA 431a6-7). However, 'to see' is an activity, and thus the answerer concedes that one can be seeing and have seen at the same time in the same respect. The result is an apparent refutation based on the likeness of figure of diction between 'to see' and 'to act upon.'

This example, as well as all future examples in this chapter, fall under the category of figure of diction because people imagine words or phrases to have meanings that they do not have on account of their similarity to words or phrases that do have those meanings. In this example, 'to see' is imagined to be an instance of 'to act

upon' because both words are grammatically active, though 'to see' signifies an undergoing and a complete activity.

178a11-16. This example plays off the fact that verbs may be both grammatically active or passive, while the actions that the words signify are either instances of undergoing (πάσχειν) or acting upon (ποιεῖν) in reality. For another instance of this mistake, cf. Aquinas, 1952, q. 8, art. 6, obj. 3 & ad 3.

178a16-28. Just as an answerer is not truly refuted by a sophistical refutation based on equivocation unless he concedes that he used the equivocal word with the same meaning, in this example the answer is not actual refuted unless he grants mistakenly that 'to see'—which is an undergoing in reality—is an acting upon.

178a32. Reading ὅσον δὲ μὴ ἔχει ἢ for ὅσα δὲ μὴ ἔχει ᾗ with Hasper and Barnes. Cf. Ross, 1958, p. 232.

178a36-178b7. Although in speech we sometimes use "only one die" in the same way we use "one die," they do not signify the same reality. As Aristotle puts it, one die is a "this," but "only one die" signifies how a "this" *relates to* particular things—namely that it is not with another. In the principle one cannot give what he does not have, 'what' applies to 'this somethings,' i.e., individual substances (cf. SE 168a25-26, SE 169a33-36 and notes *ad loc*. Besides "only," other adverbs may also lead to this confusion as Aristotle illustrates in the next example with "quickly." For adverbs express the *how* one gives, not *what* one gives.

178b8-10. The fallacy plays on the confusion of between "an eye" and "only one eye." A person cannot see with an eye he does not have. Still, he can see with only one eye although he has two. Again, he cannot punch with a fist that he does not have, but he can punch with only one fist. The sophism is analogous to Aristotle's previous example of only one die. For a thorough analysis of this and other examples from this chapter, cf. Schreiber, 2003, pp. 38-46.

178b10-11. Since this sophistical refutation results from the answerer conceding that a man can see with only one eye when he does not have only one eye, the answerer may get out of the contradiction by saying that a person with two eyes also has only one eye. This proposed solution is a contradiction of the conclusion of the sophistical argument.

178b11-13. Aristotle here draws a comparison between a proposed solution to the example concluding that one can give what he does not have and the way in which some people untie another example (SE 178a38ff). Aristotle does not completely flesh out this other example. Schreiber's interpretation is reasonable (2003, p. 41):

> "Is it the case that what one person gives to another that second person has?"
> "Yes"
> "But one person gave another only one [counting stone], yet the second person has ten [counting stones], not only one."

The proposed solution to the argument claims that a man has only one counting stone from a person who gave him one counting stone. In other words, both proposed solutions attempt to contradict the conclusion of the sophistical refutation.

178b14-16. In another proposed solution to the previous fallacy, some people deny the original question that what one person gave to another, the second person has. Accordingly, the second solution contradicts the premise, while the first solution contradicts the conclusion.

178b16-23. If a proposed solution is genuine, then a sophistical refutation becomes a genuine refutation when an answer explicitly grants the opposite of the solution (τὸ ἀντικείμενον); a genuine solution must address the underlying root of the fallacy (SE 179b17-26). For example, in dealing with the fallacy of equivocation, if the answerer concedes that he uses the word in the same sense—that is, he concedes the opposite of the genuine solution—then he is refuted. The proposed solutions do not work because even when an answerer explicitly concedes the opposite of the proposed solutions, the argument remains inconclusive. Take for instance the proposed solution to the eye example which claims that a person having many eyes also has only one eye (SE 178b10-11). If this solution were genuine, then when an answerer concedes that the person does not have only one eye—a reasonable concession—then the sophist's refutation would be genuine. However, the argument remains sophistical even when the answerer concedes the opposite of the proposed solution, and accordingly, the solution does not address the true cause of the fallacy (SE 176b29-30 and SE 179b17-24).

176b16. Cf. SE 177b33ff.

178b24-29. As with previous examples, this example turns on the implication that the "what" (ὃ) in "what is written" (ὃ γέγραπται) includes the truth quality in which it was written. In truth, the what only includes the 'this' (τόδε) that was written, and not the quality (τοιόνδε).

178b34-36. This example plays on the confusion between taking "what" collectively rather than severally. It is a true endox that what someone knows severally, he knows either through learning or self-discovery, but it is not an endox collectively. The argument is a good example of the sophism that is not due to apparent reasoning, but an apparent endox.

178b36-179a8. Following C.D.C. Reeve (2016, n. 179, pp. 295-296), it appears that Aristotle is referring to the same argument from Plato's *Parmenides* (132a1-b2). In argument, one should supply "man" for "large,"

> "I suppose you think that each form is one on the following ground: whenever some number of things seem to you to be large, perhaps there seems to be some one character, the same as you look at them all, and from that, you conclude that the large is one."
> "That's true," he said.
> "What about the large itself and other large things? If you look at them all in the same way with the mind's eye, again won't some one thing appear large?"
> "It seems so."
> "So, another form of largeness will make its appearance, which has emerged alongside largeness itself and the things that partake of it, and in turn another over these, by which all of them are large. Each of your forms will no longer be one, but an unlimited multitude." [trans. Grill and Ryan]

Aristotle mentions in Categories 5 (3b15-23):

> But in the case of second substances, it appears, from the form of their names, that they signify a "this something," when one says "man" or "animal." Indeed, this is not true; but rather they signify how something (ποιόν τι) is. For what is underlying is not one, as is first substance, but "man" and "animal" are said of many. They do not, however, signify how it (ποιόν τι) is simply, as does "white." For "white" signifies nothing other than how, but species and genus mark out how it is concerning substance. For they signify a certain substance as how it is. But they mark out more by a genus than by a species. For the one saying "animal" takes in more than the one saying "man." [trans. Coughlin]

Obviously, the metaphysical considerations of both this passage from the *Categories* and the passage above in the *Sophistical Refutations* are enormous (Meta 990b15ff and Meta 1038b34-1039a3). As far as the *Sophistical Refutations* is concerned, suffice it to say that although Socrates and man may be used similarly in speech, i.e., man is rational, and Socrates is rational, one cannot reason about them in the same way because they do not signify the same kinds of things. Socrates and every individual man signifies a 'this something,' and as a result, a sophist cannot reason about a particular man in the same manner as he can reason about the universal man.

Chapter 23: Untying Fallacies from Speech in General

179a11-12. Chapter 23 serves as a general summary of Aristotle's account of how to untie fallacies from speech. In these first lines, Aristotle notes that untying fallacies from speech is based on the opposite of the source of the argument. That is, in every fallacy from speech the sophist takes something that the answerer says to signify with an unintended meaning. To untie all these fallacies, the answerer should clarify the

intended meaning of his speech, thereby negating the meaning in which the sophist uses it.

179a12-15. Schreiber (2003, pp. 90-91) argues that this passage justifies his position that the fallacy of composition is the same fallacy as that of division. For just as there is not one fallacy for the acute and another for the grave accent, neither should there be one fallacy of composition and another fallacy of division. Schreiber's position is reasonable.

179a15-19. The precise example of the fallacy of equivocation is difficult to discern; Aristotle does not name the equivocal word but merely implies that it takes on the predicate ensouled and un-souled (ἄψυχον). Sylvester Maurus gives an example reflective of the general interpretation by commentators (Maurus, 1885, p. 620; Michael of Ephesus, 1898, p. 159-160; Tricot, 1939, p. 104; Dorion, 1995, n. 335, p. 365):

> "Is every dog (*canis*) ensouled?"
> "Yes"
> "But is the constellation *canis major* ensouled?"
> "No"
> "Therefore, every dog is not ensouled, but some are un-souled."

Whatever the precise example that Aristotle alludes to is, the genuine solution articulates in what sense the equivocal name may be—in Maurus's example *canis*—un-souled. The answerer may solve the sophistical refutation by pointing out in what sense of the equivocal word the thing the word signified may be called un-souled, and in what sense of the equivocal word it may not.

179a19. My translation includes λέγειν (which is bracketed by Ross) following all the manuscripts and every English translator. Cf. Ross, 1958, p. 235.

179a20. "Likeness of diction" (ὁμοιότητα λέξεως) is apparently another name for the fallacy of figure of diction (σχῆμα λέξεως).

179a21-22. Cf. SE 178a36-b7 and note *ad loc*.

179a23-24. Cf. SE 178b34-36 and note *ad loc.*

179a24. Cf. SE 178b31-33.

Chapter 24: Untying the Fallacy of the Accident

179b26-27. In Chapter 24, Aristotle discusses untying the fallacy of the accident (τὸ συμβεβηκὸς). This fallacy's trick turns on an interlocutor's inability to distinguish "what is the same and what is different" (SE 169b4). More specifically, Aristotle claims this fallacy results from using what is accidental in place of what is through itself (SE 170a4). The fallacy of the accident occurs "whenever anything is thought to belong to a thing {πρᾶγμα} and its accident in a like manner" (SE 166b28-29). It may be reduced to ignorance of the definition of syllogism insofar as there is no syllogism of what is accidental (SE 168a34ff). I argue in my appendix on this fallacy that it plays on the failure to make a distinction between *being* through itself (καθ' αὑτό) and accidental being. Cf. Appendix II.III What is the The Fallacy of the Accident.

179a27-31. Aristotle's method of manifesting invalid forms of "syllogisms" is to produce an example in which a particular type of conclusion might appear to be true

and another conclusion of the same logical form that is obviously false (cf. for instance, APr 26a2-8). If one can give an example of an evidently false conclusion from an argument of a particular form, then he has manifested that the conclusion does not follow necessarily, and consequently that the argument is not a syllogism. Here he states one must be equipped with examples using an accidental middle term where the conclusion is evidently false. That way, an answerer will be able to manifest that an argument from the accident is not a syllogism, but merely appears to be.

179a32-33. Judging from the way in which Aristotle speaks about this argument below (SE 179a39-b1), it appears to run as follows:

> Do you know about the good?
> Yes.
> Do you know what I am about to ask you?
> No.
> I am about to ask you about the good.
> Therefore, you don't know about the good.

179a33-34. As is clear below (SE 179b1-4), Aristotle is alluding to the following two arguments:

1. Do you know who is coming?
   No.
   Do you know Coriscus?
   Yes.
   Coriscus is coming; therefore, you know who is coming.

2. Do you know who is veiled?
   No.
   Do you know Coriscus?
   Yes.
   Coriscus is veiled; therefore, you know who is veiled.

179a34-35. Aristotle is referring to an argument given in Plato's *Euthydemus* (298e1-10).

> Is that dog a father?
> Yes.
> Is he your dog?
> Yes.
> Then he is your father.

The previous argument appears to be analogous to the one above (Cf. SE 179b5-6):

> Is that statue a work of art?
> Yes.
> Is it your statue?
> Yes.
> Then it is your work of art.

179a35. The example to which Aristotle refers in this passage has been interpreted in multiple ways (cf. Poste, 1866, n. 5, pp. 156-157; Schreiber, 2003, p. 23 and Hamblin, 1970, n. 2, p. 86). With Schreiber and Dorion, I consider the reconstruction given by Joseph as plausible (Joseph, 1916, p. 587).

> Six is a small number
> Thirty-six is six (namely, six groups of six).
> Therefore, thirty-six is a small number.
> Therefore thirty-six (which is a large number) is a small number.

179a35-39. The Greek phrase which I translate as "truly predicated of" is ἀληθεύεσθαι κατά. The same phrase is used in the same sense at *Topics* 132b4. Cf. also Top132a31 and NE 1100a35.

Concerning the meaning of the text, Aristotle's advises the answerer to untie the fallacy of the accident by pointing out that not everything that can be said of an accident, can be said of the thing itself. Aristotle holds that the fallacy of the accident

arises through the connection of many different accidentally related things belonging to the same thing. Although Coriscus and "who is coming" are ταὐτό πως [are in a way the same] (cf. Meta l024b30-32), not everything that can be predicated of "who is coming" can be predicated of Coriscus, or vice versa, because 'Coriscus who is coming' is only an accidental being just as 'musical man' is an accidental being. All the same, predicates belong only to τοῖς κατὰ τὴν οὐσίαν ἀδιαφόροις καὶ ἓν οὖσιν ἅπαντα [whatever is one and undifferentiated according to substance] or a being through itself (καθ' αὑτό). Cf. SE 179a38. The same analysis can be applied to all the examples in this chapter.

179a39-b1. Aristotle is referring to the argument he alluded to at SE 179a33.

179b7-16. Any genuine solution to a fallacy must apply to every fallacy of the same kind. The dog being a father is accidentally connected to its being your dog. Likewise, your knowing Coriscus is accidentally connected to his coming. Both fallacies play on the accidental connection in beings. The proposed solution—that it is possible to know and not to know the same thing in different respects—is not applicable to the "Is your dog a father?" example.

179b7. I have not retained Ross's replacement of διαιροῦντες for ἀναιροῦντες because it is not supported by the manuscripts and does not seem to bring any further clarity to the text. Cf. Ross, 1958 p. 236 and Dorion, 1995, n. 358, pp. 375-376.

179b11. Cf. SE 177b31-33.

179b17. This almost parenthetical line in the *Sophistical Refutations* seems to be the solution to many difficulties within the text (cf. for instance, Evans, 1975, p. 50; Cf. Poste, 1866, n. 3, p. 156 and n. 5, pp. 156-157). Cf. also SE 181b18-19 and note *ad loc.* Aristotle thinks that the same argument can have more than one difficulty. In the example of Coriscus is coming, it is true that a person can know Coriscus and not know Coriscus, but not in the same respect. The "Do you know who is coming?" example appears to have defects other than committing the fallacy of the accident; the proposed solution claims that the conclusion does not contradict the answerer's previously held position because it is possible to know and not to know the same thing in different respects. The solution claims that the argument commits the fallacy of ignorance of refutation (SE 181a8-11).

Nevertheless, a satisfactory solution points out why the conclusion appears to follow while no contradiction truly follows. In contrast, showing that an argument is false by showing that the conclusion is false is not a genuine solution. Demonstrating that motion exists does not solve Zeno's paradox because it does not explain why Zeno's argument does not work. A genuine solution must show *that from which* (παϱ' ὃ) an argument concludes something false (SE 179b20). In other words, a satisfactory solution must both show *that from which* the contradiction appears to follow as well as why no contradiction follows. The fallacy of the accident does not syllogize because there is no syllogism of the accident. Since the argument does not syllogize at all,

whether or not the apparent conclusion contradicts the interlocutor's previously held position, the proper solution to the argument is manifesting the argument does not follow.

179b20-23. Cf. Top 160b5ff.

179b23-33. Aristotle is bringing up another problem with the proposed solution to the "Do you know who is coming?" argument. It is possible to know and not to know the same thing as it is possible to know Coriscus and not know that he is musical. Nevertheless, the proposed solution is susceptible to the following rebuttal by the sophist: "Is it not the case that you know that Coriscus is Coriscus and that the one who is coming is the one who is coming?" Aristotle's solution avoids these squabbles by manifesting that the argument does not follow regardless.

179b32. With Dorion and Forster, I drop the ὄν added by Ross because it neither clarifies the text nor alters the implied meaning. Cf. Dorion, 1995, n. 367, p. 377, Ross, 1958, p. 237.

179b34-37. The proposed solution to the "Is a few times a few a few?" example that Aristotle is criticizing appears to be the position that every number is small relative to a much larger number. Thus, a person might consider one hundred large relative to two, but it is small relative to a million. As Aristotle says above, if an argument does not syllogize, but an answerer attempts to solve the fallacy by qualifying the conclusion, then he does not untie the argument because he does indicate the *that from which*.

Whenever an argument does not syllogize, only by pointing this out does one untie the fallacy satisfactorily.

179b38-39. Aristotle is evidently aware that instances of the fallacy of the accident involve ambiguous speech, and consequently, there is a tendency to categorize them as fallacies from speech. Poste, for instance, believes that the "Do you know who is coming?" example is an instance of the fallacy of equivocation (1866, n. 3, p. 156 and n. 5, pp. 156-157). Aristotle is pushing back against this tendency.

179b39-180a1. Aristotle appears to be contradicting himself here (cf. Poste, 1866, n. 9, p. 157, Dorion, 1995, n. 373, p. 379). In Chapter 4, he lists the three species of equivocation and amphiboly: those that signify in many ways properly, those that signify in many ways through being accustomed to speak metaphorically, and those that signify in many ways only in combination with other words (cf. SE 166a14-21 and notes *ad loc*). Why is the fact that 'your' (σός) is not properly (κυρίως) said in many ways inhibit the word from being equivocal? Aristotle is not claiming that the only form of equivocation is when the word is used properly with more than one meaning. Rather, he neglects the other two ways of equivocation because they are evidently not options in this example. No one would believe that the example uses 'your' (σός) metaphorically, nor would anyone believe that the syntactical function of 'your' is ambiguous. Therefore, Aristotle argues against the only viable option relevant to the example. Whether or not my interpretation is accurate, Aristotle's overall point is clear: the example commits the

fallacy of the accident, and since there is no syllogism of the accident, to note as much is the correct solution of this example.

180a1-7. That the boy is both a child and the slave of his master is an accidental composition or unity. A slave child is an accidental being like musical Socrates (cf. Meta 1017a7-22).

180a6. συμβέβηκεν (which I translate as happened accidentally] is a finite form of συμβεβηκὸς which is commonly translated as 'accident' or 'coincident.' The word may be translated more literally as "just happened" or "just fell together."

180a8-22. As noted by Barnes (Aristotle, 1984, p. 307), the arguments in this paragraph are based on the different usages of the genitive case and do not have a "natural" equivalent in uninflected languages. We do not normally say, for instance, that man is of animals (τὸν ἄνθρωπον τῶν ζώων), using the partitive genitive, but that man is an animal (SE 180a11). Still, the meaning of "man is of animals" is conveyed in the English, albeit awkwardly.

180a12. Anything that is in relation to a relative opposite it can be said to be *of* that opposite as two can be said to be half *of* four. According to Aristotle, knowledge is among things in the category of relation (Cat 6a7-b14). Thus, knowledge is said to be *of* its object which in this case is evils, i.e., knowledge of evils.

180a21-22. The phrase "Sing, goddess, the rage" (μῆνιν ἄειδε, θεά) is a restatement of the opening words of Homer's *Iliad*.

Chapter 25: Untying the Fallacy of What is Simply and What is in Some Respect

180a23-31. Chapter 25 describes how to untie the fallacy of what is simply and what is in some respect. In this kind of sophistical refutation, the conclusion of the refutation does not contradict the opinion of the answerer because the "affirmation and denial are not of the same thing" (SE 168b10-16). Cf. also 168b38-167a20 and notes *ad loc*. The dialectician, therefore, must consider the conclusion of his supposed refutation in relation to the conclusion's contradiction to verify that the previously held position applies in the same respect. If it does not, then there is no refutation but only the fallacy.

180a32-34. The two examples here should be compared to those of Chapter 5. Cf. SE 167a1-4. They play on confusing being simply and being in some qualified way. Non-being, simply, is not, but it *is* a matter of opinion. These examples are to some extent inspired by Plato's *Sophist* (237a-241b) and Parmenides' fragment (DK B8).

180a34-b7. Aristotle never explicitly lays out the precise argument behind these two examples. Zaslawsky argues that sophists used such statements as "I swear that I am lying" or "I order you to disobey me" to contradict the answerer's position that the same person cannot be honest and dishonest at once, nor obey and disobey (1982, pp. 243-244). For the self-referential statement "I swear that I am lying" is both honest and dishonest at once. A number of scholars have noted the apparent similarities between Aristotle's examples and the infamous Liar's paradox (cf. for instance, Ebbesen, 1981 pp. 42-45, Dorion, 1995, pp. 384-386). Paolo Crivelli has a detailed analysis of different

scholarly interpretations of Aristotle's example (2004, pp. 63-65). Crivelli interprets Aristotle as treating a "strong" version of the liar's paradox where Aristotle is dealing with self-referential statements such as "I am lying in this statement." In other words, Crivelli interprets the example as precisely the argument outlined by Zaslawsky. While no interpretation of this passage is beyond dispute, it is doubtful that Aristotle is considering the liar's paradox for the simple reason that his explicit solution to the example at SE 180b5-7 is, as Crivelli notes, "hopeless" if it is to regarded as for the "strong" liar's paradox (2004, p. 66).

In my interpretation, which is admittedly dull by comparison, Aristotle's example lacks the self-referential character of the "strong" liar's paradox. Instead, the example turns on the possibility of there being a man who is a habitual liar, but is in some respect honest because some of his claims are true such as his claim that he will later lie (SE 181b1-2). The other example concerning one who disobeys can be interpreted similarly, as when a person is ordered by two different authorities to do different things (cf. Maurus, 1885, p. 624).

180b7-21. All of the examples in this paragraph appear to turn on a sophist's ability to produce an instance in which something good simply—for instance, power—was bad for a particular person. Aristotle's solution is reminiscent of his qualification of the best regime: a regime may be the best simply, but bad for a certain people at a certain time (Pol 1288b20-40). In the same way, power may be good simply, but bad for Nero.

180b12. Following Pickard-Cambridge and Dorion, I have rejected Wallies' and Ross's replacement of βέλτιον for ἀγαθόν. Cf. Ross, 1958, p. 239.

180b21-23. In the *Topics* (118a34-40), Aristotle points out a dialectical place that states that two terms share the same comparison as their inflected forms and vice versa. Aristotle's example is that if the 'justly' (τὸ δικαίως) is preferable (αἱρετώτερον) to the courageously (ἀνδπείως), then justice is preferable to courage and vice versa (Top 118a36-40). Aristotle seems to be assuming the context of this dialectical place. Since that the just is preferable to the unjust is an endox, that the 'justly' is preferable to the 'unjustly' is an endox too.

Xenophon's *Apology* recounts how Apollodorus told Socrates that he found it especially hard to bear that Socrates was to be put to death unjustly. Socrates answered rhetorically, "Apollodorus, my dearest friend, would you prefer to see me put to death justly (δικαίως ἀποθνήσκοντα) instead?" (Xenophon, trans. C.D.C. Reeve, p. 28). Although what is done 'justly' is preferable to what is done 'unjustly' *simply*, what is done 'unjustly' is preferable to what is done 'justly' *insofar as Socrates is concerned*. Cf. also SE 180b28-31.

180b23-24. Aristotle appears to be alluding to a fallacy in which the sophist tries to show that a judge's decision can be both just and unjust because he can mistakenly render property to an unlawful owner (SE 180b31-34). Cf. also Rhet 1366b9-11 where Aristotle claims that justice is the virtue by which everyone enjoys his or her

possessions by the law, and injustice is the vice by which men enjoy other people's possessions in defiance of the law.

Chapter 26: Untying the Fallacy of Ignorance of Refutation

181a1-5. Chapter 26 deals with untying the fallacy of ignorance of refutation. In my interpretation, the fallacy is not derived from the ignorance of any aspect of the entire definition of refutation, but from ignorance of the proper mark of refutation, i.e., contradiction. If an argument appears to contradict a proposition previously affirmed by the interlocutor—while not actually contradicting it—the argument commits the fallacy of ignorance of refutation. Aristotle first treats of the fallacy at SE 167a20-35. In this passage, Aristotle advises the answerer to challenge the fallacy by considering if the conclusion of the "refutation" meets all the qualifications of contradiction. Cf. also SE 167a23-27.

181a5-8. If the questioner asks at the beginning of the dialogue whether something can be both double and not double, the answerer should reply yes because there is no stipulation that it is at the same time, in the same respect, relative to the quantity, and so on. By answering yes, the respondent will avoid the sophistical refutation. The answerer should answer no only if the sophist includes these stipulations in his question. Cf. SE also 167a29-33.

181a11-14. Perhaps Aristotle's example is referring to something that grows from being three cubits long to being four cubits long, and so the magnitude is both equal to and greater than a three-cubit long magnitude, but not at the same time.

Chapter 27: Untying the Fallacy of Begging the Question

181a15-17. Chapter 27 treats of untying the fallacy of begging the question. Aristotle first introduces the fallacy of begging the question in Chapter 5 where he points out that they are deceptive insofar as the answerer is unable to distinguish the same from the different. That is, the answerer does not see that the conclusion has been assumed in the premises because the conclusion was altered in some way. Cf. SE 167a37-40 and notes *ad loc*.

In the passage, Aristotle claims that if a dialectician notices his opponent begging the question, he should reject his assumption by noting that his opponent begs the question, even when the assumption is an endox.

181a17-21. If the dialectician concedes the original question, then after the conclusion is drawn he should still accuse his opponent of not arguing dialectically. He should claim to have conceded the original question not to be used a premise, but as a confirmation of his position on the established question.

181a19. Cf. SE 167a25-27 and 168b25-26.

181a21. A side-refutation (παρεξέλεγχος) appears to be a refutation of one of the interlocutor's positions, but not his position on the established dialectical question (cf.

Top 112a8 and SE 176a24 and note *ad loc*). A side-refutation may use the answerer's opinion on the original question as a premise to the refutation of some other point.

Chapter 28: Untying the Fallacy of the Consequent

181a22-24. This chapter discusses untying the fallacy of affirming the consequent. Aristotle claims that the fallacy of assuming the consequent occurs whenever it is assumed that an implication converts (SE 167b2). People tend to assume that things that are "the same by one and the same thing are also the same as one another" (SE 168b31-32 and note *ad loc*). For examples, if someone is carrying a nine-millimeter handgun on West Avenue, and someone shot a clerk on West Avenue with a nine-millimeter handgun, then we might assume that they are the same person. The fallacy of assuming the consequent can be reduced to the ignorance of refutation because the argument does not follow necessarily (SE 169a3-5).

181a24-25. One cannot assume that every animal is a man because every man is an animal. Whenever the predicate is not commensurately universal with the subject, the statement will not convert. Thus, if the subject is more particular than the predicate and a person assumes that the statement converts, then he commits the fallacy of assuming the consequent.

181a27-28. Cf. Phys 186a5-22, SE 168b35, SE 167b13-19 and note *ad loc*.

181a28-30. Although it is true that everything that has no beginning, i.e., is infinite (ἄπειρος), did not come to be, it is not necessary that everything which did not come to be had no beginning.

Chapter 29: Untying the Fallacy of Taking the Non-cause as Cause

181a31-35. In this chapter, Aristotle explains how to untie the fallacy of taking the non-cause as a cause. The fallacy occurs in arguments that syllogize to an impossibility when a "premise" that does not cause the impossibility is assumed to do such (167b20-37 and notes *ad loc*). A statement that is not a genuine premise of the argument is assumed to be a premise due to which the impossibility results (SE 169b13ff). In this passage, Aristotle advises the dialectician to consider if the impossibility will result regardless of whether or not the statement is assumed. If it does, the dialectician should point out that the statement is not necessary for the argument and say that he granted it merely for the sake of argument.

Chapter 30: Untying the Fallacy of Making Many Questions One

181a36-39. This chapter discusses untying the fallacy of making many questions one. It occurs when the answerer overlooks that there are many questions and gives one answer as if there is only one question (SE 167b38-a1 and note *ad loc*). In dialectic, questions become premises for refutations. An answer to a complex question, therefore, may give the sophist a number of premises to use against his opponent. Accordingly,

the fallacy makes use of the ignorance of a premise's account (λόγος) because a premise is one term said of one term (169a6-18 and note *ad loc*).

Just as it is Aristotle's advice to distinguish the different senses of a word when confronted with a question that has an equivocal word, so also Aristotle advises the answerer to distinguish both questions that the questioner hides in his apparently singular question. It is necessary for the interlocutor to parse out how the questioner really asks more than one question with his interrogation. If the questioner asks the question, "Do you beat your wife often?" the answerer must respond, "You are actually asking if I beat my wife and if I do so often. No, I do not beat my wife, and therefore I do not beat her often."

181a39-b3. Cf. SE 175b39-176a16 and notes *ad loc*. When a word or phrase in a question has multiple meanings, a simple answer will give the sophist as many premises as there are meanings.

181b3-7. Sometimes complex questions can be answered simply without the danger of contradiction. To use Aristotle's simple example, if Coriscus and Callias are both at home, an answerer can give a simple yes to the question "Are Coriscus and Callias at home?" without affirming something incorrectly. Nevertheless, it is still a mistake (ἁμαρτία) to answer a complex question simply because, according to Aristotle (SE 176a9-12), it ruins the discussion (τὸ διαλέγεσθαι).

181b7-13. Whenever two opposed attributes belong to two different subjects respectively, an answerer must be wary of affirming that the two subjects are both of the opposed attributes. Aristotle's example is something close to the following:

> "Can the same thing be both good and bad?"
> "No."
> "Are virtue and vice good and bad?"
> "Yes."
> "Therefore, the same thing is both good and bad."

Good and bad are not true of both subjects respectively, but good belongs to one, and bad belongs to the other. One could make a similar argument to reason that the same thing is neither good nor bad.

181b13-15. Each thing is the same as itself as A is A, but different from other things as A is not B. Thus, in one respect a person can say that things are the same as themselves, and in another respect, things are different from themselves.

181b15-16. In an example similar to the example at SE 181b11, the fallacy reasons that two things can become both good and bad because A becomes good and B becomes bad.

181b16-18. In one sense, two things can be said to be the same as themselves, and similarly, two unequal things can be said to be equal to themselves. Nonetheless, insofar as they can be said to be different from themselves, they can be said to be unequal to themselves (SE 181b14).

181b19-20. "Both" and "all" are equivocal insofar as they can be said severally or collectively. Thus, a sophist can equivocate between the two meanings to makes statements such as, "Both A and B are different from themselves," and "Both A and B are the same as themselves."

This is the only example of a fallacy where Aristotle explicitly gives two different satisfactory resolutions. The examples above may be considered as instances of the fallacy of making many questions one or the fallacy of equivocation. Aristotle already claimed that nothing prevents one argument from having many faults. Still, he claims acceptable solutions must expose not only a fault, but must expose that from which the falsehood results (SE 179b17-26 and note *ad loc*). Cf. also SE 176b29-177a5 and notes *ad loc*. Aristotle also denies (SE 177b27-b34 and notes *ad loc*) some solutions because they do not apply to all fallacies that fall under the same place; do not apply to all ways of questioning; or are not relative to the answerer only, and not the argument (πρὸς τὸν λόγον). In this paragraph, however, Aristotle acknowledges the possibility that the same argument may have more than one proper solution.

181b20-24. Cf. SE 167a23-24, SE 168a27-33 and SE 177a30-32 where Aristotle repeatedly argues that a true refutation is an affirmation and negation not only of the name, but the thing.

Chapter 31: Untying Arguments Leading to Babbling

181b25-26. Since Aristotle has concluded his explanation of how to untie sophistical refutations, he now turns to how the answerer should respond to some secondary ends of the sophist. In this chapter, Aristotle explains how the answerer can avoid being forced to babble (ἀδολεσχεῖν). To induce babbling, which is the fifth aim of the sophist, is to make his interlocutor repeat the same exact words over and over (SE 165b15-16 and note *ad loc*). Aristotle discusses the place which sophists use to induce babbling in Chapter 13.

181b26-33. Aristotle is referring to his example of an argument used to induce babbling using relative terms such as "double" (SE 173a34-36). If an answerer affirms that "double" and "double of half" are the same, then a sophist may replace "double" in the phrase "double of the half" with "double of the half" resulting in the babbling phrase "double of the half of the half." The answerer should respond to his example by claiming "double" in the phrase "double of half" does not signify anything in isolation, instead only the whole as whole signifies.

181b28. With Forster, Pichard-Cambridge, and Dorion, I have retained ἄνευ which Ross (1958, p. 243) replaced with ἀντὶ.

181b33-34. Perhaps Aristotle's point is that whether or not "double" in the phrase "double of half" signifies anything by itself, it clearly does not carry the same meaning in a phrase where it is not united to its correlative opposite. The answerer must,

therefore, claim that the sophist can take the account of "double" outside of a phrase where it is united with its correlative opposite and replace "double" in the phrase "double of half" (SE 173b11ff).

181b34-35. Aristotle places knowledge in the category of relation because knowledge as such is *of* the knowable (Cat 11b24). Therefore, the statement that knowledge is knowledge of the knowable is an endox. A specific kind of knowledge, such as the science of medicine, is knowledge of health and sickness. Accordingly, a sophist may replace "knowledge" in "knowledge of health and sickness" with "knowledge of the knowable" with the result that medicine is called "knowledge of the knowable of health and sickness," and so on over and over.

181b35-36. Snub, for instance, which may be predicated of a nose, has "nose" in its definition. Hence snub is a predicate and is predicated of something included in its definition, namely nose. In Chapter 13, Aristotle gave two places to look for endoxes to induce babbling: relatives—which Aristotle at the beginning of this chapter —and the terms predicated of or linked with other terms that falls within their own definition—which Aristotle treats at the end of the chapter. For instance, odd may be linked with number in the phrase odd number, but number is also in the definition of odd (SE 173b1-11 and note *ad loc*). Cf. also Dorion, 1995, n. 428, p. 398.

182a3-6. Cf. SE 173b9-10 where Aristotle explains the reasoning to which this solution is directed: "If snubness is a concavity of the nose, and there is a snubbed nose, then there

is a concave nose nose." When the sophist asks—using the nominative—if snub is a concave nose, the answerer should respond, "No, but it is something of a nose (ῥινὸς)"—using the genitive.

Chapter 32: Untying Arguments Leading to Solecism

182a7-9. Cf. 173b26-174a16 where Aristotle discusses different means a sophist can use to force his opponent to make apparent solecisms—a barbarism made on account of an argument (SE 165b21-22). Since English is not an inflected language, it is difficult to reproduce Aristotle's examples in translation. I have included the Greek words in parentheses when relevant.

182a10-11. There is no adequate way to represent this form of argument in a non-inflected language. The argument is based on the accusative infinitive construction where the subject of εἶναι is accusative and consequently has an accusative predicate. When the accusative is predicated of a normal nominative subject, it and the nominative are paired through an ἔστιν, a violation of Ancient Greek grammar. Solecism results from the fact that the *nominative* neuter "τι" (something) is said to be an *accusative* masculine "λίθον" (stone).

182a11-15. Aristotle is saying that the accusative word "λίθον" should have the accusative relative pronoun "ὃν" and the accusative pronoun "τοῦτον." Obviously, the requirement does not carry over to the word "stone" in English.

182a15-16. Since the nominative and accusative forms of Ancient Greek words are identical in the neuter, the sophist will not play on their distinction to produce solecisms.

182a16-18. Since log ξύλον is neuter, it matches the neuter τοῦτο, and there is no apparent solecism.

182a19-24. Aristotle appears to be saying that unless the answerer explicitly admits that she (αὕτη) can signify Coriscus, the argument does not follow even if Coriscus does signify a female.

182a24-27. As the example of Coriscus required a supplementary question, so too the stone (λίθος) example requires a supplementary question. For the stone example does not conclude unless the answerer admits that stone (λίθον), which is accusative, in "but you call something a stone" (φὴς δ 'εἶναί τι λίθον) can be signified by "he" (οὗτος) which is nominative, and not τοῦτον which is accusative.

182a27-31. Again, the argument is based on the accusative infinitive construction where the subject of εἶναι is an accusative, and therefore, the accusative and the nominative are paired through ἔστιν in the conclusion.

182a31-34. The nominative pronoun οὗτος is not a stand-in for the accusative form Κλέωνα, but the nominative form Κλέων.

182a34-39. The solecism results from ἐπίστασαι [you know], which should take an accusative direct object, taking the nominative direct object λίθος.

Chapter 33: Difficult and Easy Untying

182b6-31. Chapter 33 treats ways in which are one instance of a fallacy may be more difficult to deal with than another. Interpretations of this passage are varied. Schreiber takes the passage to be saying that the same argument may be a sophistical refutation for different reasons for different people because it will appear to be genuine for different reasons (2003, n. 8, p. 81). Dorion (1995, n. 443, p. 401), however, understands Aristotle to be claiming that an argument that is modified (μεταφερόμενον, which I translate as when carried over at SE 182b12) can go from being a fallacy outside of speech to a fallacy inside of speech. Poste offers yet another interpretation; he thinks that τὸ μεταφερόμενον refers to the fact that a sophistical place may be carried over from one discipline to another (1866, p. 163). This is the characteristic universality of dialectic—and in this case sophistic.

Poste's interpretation fits best with Aristotle's argument in this paragraph, although nothing in the argument necessitates that the being carried over (μεταφερόμενον) implies application to various sciences. Thus, Aristotle argues that, at times, even the vulgar (τοῖς τυχοῦσίν) can recognize the fallacy of equivocation while at other times even the most experienced cannot. In other words, the more or less deceptive nature of any instance of a fallacy is not directly determined by the kind of fallacy that it is because two arguments may committ the same fallacy, and yet, one is easy to untie and the other difficult.

182b16-17. The Greek word δίφρος (which I translate as chariot) may also signify a desk chair. Hence, the not so comical statement is that a man carries a desk chair down the ladder (cf. Tricot, 1939, n.1, p. 130).

182b17. The question plays on the Greek word στέλλεσθε (which I translate as bound) which may also signify the action by which a sailor takes in a sail (cf. LS). The questioner is asking where the sailor is going. The sailor responds according to this second meaning, "to the yardarm."

182b17-18. The Greek word ἔμπροσθεν (which I translate as earlier) may also mean before in space, that is, in front. Thus, the comical exchange results from mistaking the word as signifying the order in space when it signifies the order in time.

182b19. The Greek word βορέας (which signifies the serene North Wind) may also signify the god of that wind (ὁ βορέας) who has committed violent acts.

182b20-21. The Greek word εὔαρχος (which I translate as meek) is meant "in the sense of 'tractable, manageable, submissive to authority' is used of slaves in the pseudo-Aristotelian *Oeconomica* (I 1344bl4)" (Einarson, 1936, p. 332). The respondent, however, takes the word to be a proper name and responds that his name is Ἀπολλωνίδης (which I take the liberty of translating as Wilde).

182b25-27. The solution through the equivocation of Zeno's and Parmenides' argument that being is one is, of course, that of Aristotle (SE 170b21-24, Phys 186a23ff).

182b32-37. Since a sophistical refutation either merely appears to syllogize or its premises are only apparent endoxes, the proper solution may involve making the necessary distinctions to show why the argument merely appears to syllogize or making the necessary distinctions to show that why a premise is only an apparent endox or both. The answerer can be perplexed about which premise he must do away with, or how to distinguish the questions such that an apparent contradiction does not appear to follow.

182b37-183a4. The obscurity of this passage is Aristotle's reference to a technical process of transposing a contradiction (μετατιθεμένης τῆς ἀντιφάσεως) to produce further arguments that syllogize to the contradiction of both of the premises by using the other premise.

> Converting consists of transposing a conclusion to make a syllogism to establish that either the major term does not belong to the middle, or the middle to the minor. For when the conclusion is converted, and one of the premises is preserved, one must do away with the other remaining premise (APr 59a1-5).

With Pickard-Cambridge, Tricot, and Dorion, I am using the example of Pacius (1966, p. 529-530) to exemplify this process.

1) All mothers love their children.
   Medea was a mother.
   Medea loves her children.

The dialectician may then take the contradiction of the conclusion and one of the premises to syllogize against the remaining premises using the rules of conversion established in the *Prior Analytics* (59b1-60).

2) Medea did not love her children.
   Medea was a mother.
   Some mothers do not love their children.

3) Medea did not love her children.
   All mothers love their children.
   Medea was not a mother.

Aristotle's overall point is that when the premises and contradiction of the first argument's conclusion are all equally endoxical, it is unclear where the argument's falsehood lies. All syllogisms are similar (a39) in that they do away with an endoxical proposition with equally endoxical premises. No one of the three syllogisms stands out as defective, and as a result, the original argument causes perplexity. Cf. Tricot, 1939, n. 4, p. 131.

183a2. With Dorion, Hasper, and Grote, I reject the ἢ κατασκευάσει which Ross bracketed. Cf. Ross, p. 247 and Dorion, 1995, n. 453, p. 405.

183a4-7. A fallacy in which the conclusion and premises are equal or alike in their endoxic nature is the second most subtle of the arguments that syllogize. It is more difficult to attack a sophistical argument when it is not clear where the defect lies. If all of the premises appear to be equally endoxical, then the answerer has no probable indication which premise is *that from which* the sophistical refutation results.

183a8-10. Cf. SE 176b35-36 where Aristotle claims an argument can be false either because it syllogizes to a false conclusion or because it merely appears to syllogize. If it

is unclear in which of these ways an argument is sophistical, then the argument is more difficult to untie.

183a24. Cf. Top 161a9-12.

Chapter 34: Epilogue

183a27-36. Aristotle begins Chapter 34 by recounting the contents of the *Sophistical Refutations*. The remainder of the chapter is not only a conclusion of the *Sophistical Refutations*, but a conclusion of his consideration of dialectic as a whole. Chapters 4 and 5 of the *Sophistical Refutations* laid out Aristotle's list of 13 sophistical refutations. In Chapter 12 Aristotle discussed leading an opponent in to speaking falsely or stating paradoxes. In Chapter 14 he discusses producing solecisms (Chapter 13, which Aristotle does not reference, discusses methods used for making an interlocutor babble). Chapter 15 determined how the sophist should marshal his arguments, and Chapter 16 showed how the study of such arguments are useful for the philosopher. Chapters 17 and 18 treated answering such arguments in general, and Chapters 19-30 discussed untying each fallacy in particular.

183a30. In this passage, I take the correction of Pacius and replace συλλογισμός with σολοικισμὸς because it makes Aristotle's enumeration of different subject matters that he treats in the *Sophistical Refutations* more complete and it avoids unnecessary repetition. With Forster, Pickard Cambridge, Poste, Tricot, Hasper, and Dorion, the same replacement is made at SE 183a33. Cf. Ross, 1958, 248.

183a37-b6. This recollection of the beginning purpose is a recollection of the beginning of the *Topics*. Aristotle says at the beginning of the *Topics* (Top 100a18-21),

> The purpose of the treatise is to find a method from which we will be able (δυνησόμεθα) to syllogize about every proposed problem from endoxes, and, [from which], we ourselves will say nothing contrary when maintaining an argument.

Cf. also Top 159a15-25. In Aristotle's recollection of the *Topics'* purpose, he also mentions the testing art which is most thoroughly discussed in Chapter 11 of the *Sophistical Refutations.* This recollection forms part of the justification for considering the *Sophistical Refutations* as a sort of appendix to the *Topics*. For a more thorough discussion of the function of the *Sophistical Refutations* in Aristotle's *Organon*, consult the Introduction II.V The Sophistical Art as Part of the Dialectical Art.

183b1. Reading προκατασκευάζεται (translated as is ascribed further) which is in almost all manuscripts in place of Ross's conjecture of προκατασκευαστέον. Cf. Ross, 1958, p. 248.

183b6-8. It is difficult to imagine that Aristotle did not have Socrates in mind when he composed the *Topics* and the *Sophistical Refutations*. Nonetheless, outside of him being used as an accidental subject of examples, this is the only mention of the person Socrates in both treatises. In Plato's dialogues (cf. for instance, *Meno* 70a-79b), Socrates often claims ignorance about a subject and then goes on to manifest the ignorance of his many interlocutors about that same subject. According to Aristotle, Socrates is able to expose the ignorance of his interlocutor without knowing because Socrates knows the

testing art. Aristotle defines testing arguments as those which "syllogize from opinions held by the answerer and from premises that anyone pretending to have scientific knowledge must know" (SE 165b4-6). Aristotle claims that in contrast to an art like geometry, a person can have the testing art without knowledge. Even though Socrates may not know a relevant art, using common principles he is able to expose those who similarly do not know (SE 172a21ff and notes *ad loc*). A testing argument "is able to syllogize to what is false through the ignorance of the one who grants the argument" (SE 169b25-27).

183b8-9. Cf. Top 101b11-19 and 103b20-104a2.

183a9-10. Aristotle gives numerous dialectical places in which to look for endoxes in Books II-VII of his *Topics*.

183a10-12. Aristotle treats the manner in which a dialectician is to arrange and answer his questions in Book VIII of his *Topics*.

183a16-33. Aristotle ends his treatise by returning to how it began, emphasizing the importance of the beginning. As Aristotle says, once the beginning has been discovered, it is easy to have on and discover the rest. His words here echo what is said in the Nicomachean Ethics,

> Let this serve as an outline of the good; for we must presumably first sketch it roughly, and then later fill in the details. But it would seem that anyone is capable of carrying on and articulating what has once been well outlined, and that time is a good discoverer or partner in such a work; to which facts the advances of the arts are due; for anyone can add what is lacking (NE, 1098a20-26, trans. Ross).

Aristotle has done completed the difficult task of making a good beginning. It is now up to his predecessors (who apparently need not be of any particular ability) to fill in the details.

184b2. Reading ἀλλ' ἢ with Barnes, BDS. Cf. Ross, 1958, p. 250.

Appendix I: Equivocation and its Fallacy

Introduction

The concept of equivocation is fundamental in Aristotle's philosophy. In its traditional order, Aristotle's *Organon*—and indeed his entire corpus—begins with an account of equivocation (Cat 1a1-6). Aristotle makes the ability to distinguish the different senses of a name the second tool of his dialectical art (Top 105a24-25). Moreover, awareness of the diverse signification of names is one of two chief uses that the philosopher has for the study of sophistic (SE 175a5-10). Aristotle himself distinguishes the meanings of names in every discipline that he treats and devotes an entire book of his *Metaphysics* (1012b34-1025b3) to various meanings of the most universal names. The most naturally adapted and most common place to derive a sophistical refutation is that on account of names (SE 165a4-5). Aristotle implies that this fallacy eludes even the most experienced (ἐμπειροτάτους, SE 182b22). Hence it is "crucial for us to have a precise and accurate understanding of what Aristotle means" by 'equivocation' and 'said in many ways,' "if we are to have a clear grasp of many fundamental areas of his philosophy."[136]

To unfold Aristotle's account of equivocation and the fallacy of equivocation, let us begin by reviewing Aristotle's account of name, and afterward, distinguish between proper and metaphorical naming. In doing so, we shall see that equivocal naming is a

[136] Brakas, 2011, p. 135.

kind of proper naming. Subsequently, we will examine Aristotle's argument that using equivocal names is necessary. The following will then be undertaken: an unfolding of Aristotle's understanding of the fallacy of equivocation and how to untie the fallacy; a survey of the logical places Aristotle uses to distinguish the multiple meanings of names; and finally, an attempt to classify various forms of equivocation.

I.I What is a Name?

In the book of Genesis, God brings every beast of the field and bird of the air before Adam to see what he would call them. What Adam called an animal was the living creature's name.[137] The act of naming is distinctively human—a result of man's reason. Firstly, it requires that one can recognize the things that he names, and secondly, insofar as many names signify universal natures, naming requires the ability to recognize universal natures.[138] Aristotle defines name as part of a higher genus, that of vocal sound (φωνή). To understand Aristotle's meaning of name, therefore, one must first understand his meaning of vocal sound.

> The things in vocal sound (φωνή) are symbols of the undergoings (πάθημα) in the soul, and the written things are [symbols] of the things in vocal sound. And just as the written things are not the same for all, neither is vocal sound the same [for all]. However, those of which these are the signs first, these undergoings of

[137] Cf. Genesis, 2:19-20.

[138] It should be obvious that I am using "name" here and throughout the essay in a broad sense to include universal names like "man" and "animal" rather than in the more limited including only proper names like "Charles" and "Fido."

> the soul are the same for all, and those of which these are likenesses, the things, are already the same.[139]

In this sketch of Aristotle's understanding of vocal sound, it is a symbol or sign of the undergoings in the soul which are themselves likeness of things. Every sign creates a sensible impression and brings to mind something other than itself.[140] As a sign, speech brings to mind the undergoings of the soul. Aristotle uses undergoings, as opposed to thoughts, because vocal sounds can signify through thoughts and passions of the soul. What is important here is that speech does not directly signify things.[141] We do not, therefore, name and speak about things as they are simply, but as they are insofar as they are known to us.[142]

Aristotle defines name (ὄνομα) as "vocal sound (φωνὴ), significant according to convention, without time, no part of which signifies separately."[143] In this definition, ὄνομα bears the meaning of not just any name but a noun. The definition divides name from such vocal sounds as groans and gasps by being significant by convention (DeIn 16a27-30). It divides name from speech because the parts of the speech signify

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[139] Ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα, καὶ τὰ γραφόμενα τῶν ἐν τῇ φωνῇ. καὶ ὥσπερ οὐδὲ γράμματα πᾶσι τὰ αὐτά, οὐδὲ φωναὶ αἱ αὐταί ὧν μέντοι ταῦτα σημεῖα πρώτων, ταὐτὰ πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταὐτά (DeIn 16a3-7).

[140] Cf. Augustine, 2009, II.1, p. 32.

[141] Of course, our names signify things (otherwise, how could they be said of them?), but they do so through thoughts. Aristotle is not making the claim that we only signify thoughts insofar as they are things. If this were the case there would be no difference between second intention names like genus, subject, predicate, and middle term and first intention names like dog and cat.

[142] Cf. Aquinas, 1947, Ia-IIae, q. 25, art. 2 ad. 1; Ia, q. 13, intro.

[143] Ὄνομα μὲν οὖν ἐστὶ φωνὴ σημαντικὴ κατὰ συνθήκην ἄνευ χρόνου, ἧς μηδὲν μέρος ἐστὶ σημαντικὸν κεχωρισμένον (DeIn 16a20-21).

separately (DeIn 16b26-27), and it divides name from the verb (ῥῆμα) because the verb signifies with time (DeIn 16b6-7). Aristotle will also use ὄνομα with its more general meaning dropping the modifier that it signifies without time. More generally, a name (ὄνομα) is a vocal sound that signifies by custom and no part of which signifies by itself. Aristotle uses this more general meaning to include verbs and adjectives. We say, for instance, that "run" names an action. Thus, Aristotle calls the sophistical place of equivocation that "on account of names" (SE 165a5), while his examples of equivocal names include equivocal verbs (cf. SE 165b31, SE 166a20-21, SE 165b34). Name then is a vocal sound that signifies by custom no part of which signifies by itself.

I.II Two Kinds of Name

There are two fundamental kinds of names: the metaphorical name and the proper name.[144] In some cases, a name applies to two different things, but it only signifies one of the things "according to convention," and the other thing by a figure of speech. When used as a metaphor, the same name does not truly apply to the thing because it does not signify the thing. Aristotle describes using a metaphor (μεταφορά) as, "giving a thing a name that belongs to something else" (Poet 1457b7-8, trans. Bywater).[145] For example, when Boston Celtics fans called Ray Allen "Benedict Arnold"

[144] I do not use "proper name" here to refer to the names that refer to particular things, such as "Luke" or "Macintosh." Rather I am using proper name here to refer to a name that is not used as a figure of speech or metaphor.

[145] I take it that Aristotle is using metaphor (μεταφορά here generally to include any instance in which the meaning of the speech is different form the meaning of the speaker, i.e., all figures of speech. Thus,

because he left the Celtics to play for the Miami Heat, they did not mean that he was Benedict Arnold (although that is the person that the name referred to). They meant that Allen was like Arnold because he was a traitor. The Celtic fans used a metaphor. Naming a thing by a name that does not properly apply to it is to use a name figuratively or improperly. The name keeps exactly the same meaning but is imposed on a subject to which it does not apply. This improper naming stimulates the mind and appeals to the imagination and emotion by 'metaphor,' that is, a 'carrying across' of the name.[146] The definition of the nature signified by the name stays the same in metaphorical naming although it is applied to things with different natures. When what one means by a name does apply to the thing which is named, then the name has been used properly. Thus, there are two kinds of names: the proper name and the metaphorical name.

I.III Proper Names: Equivocal vs. Univocal Naming

Proper names may be further distinguished into two kinds: the univocal name and the equivocal name. In the first chapter of his *Categories*, Aristotle distinguishes two ways in which things have a proper name in common:

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metaphor would include such figures as antonomasia, synecdoche, and metonymy; It is not limited to the strict meaning of metaphor where the name is given a thing that is like what the name signifies. In this way, the translateration of the word falls short.

[146] Cf. De Koninck, 1961, p. 28.

> Things are called equivocal (ὁμωνύμα) whose name alone is common but the account of the substance (οὐσία)[147] according to the name is different. For instance, both man and the drawing are called animal because the name of these alone is common but the account of the substance according to the name is different. For if someone gives the 'what it is' (τί ἐστιν) for each of them to be an animal, he will give a distinct account of each. Things are called univocal whose name is common and the account of the substance according to the name is the same, as for instance, both man and ox [are called] animal. For man and ox are called by the common name animal, and the account of the substance is the same. For if someone gives over an account of the 'what it is' for each of these to be an animal, he will give over the same account. [148]

If two things share a proper name in common, they may be called either equivocal or univocal; the division is exhaustive.[149] In the case of equivocal things, the account of the 'substance' or 'what it is' signified by the name is different, although the same name applies to both things. The name 'animal' properly signifies both the human being and the statue, but the statue and the human being are animals equivocally because the "account of the substance" signified by 'animal' is different in each case. 'Animal'

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[147] Aristotle uses the phrase "account of the substance" (λόγος τῆς οὐσίας) to signify the speech that makes known the essence of a thing. As the name is used here, 'substance' signifies the 'what it is' (τί ἐστιν) of a thing as is clear from what follows immediately in the text: "for if someone gives over the 'what it is' for each of them to be animal, he will give over a distinct account of each." Substance is an equivocal word and does not have the meaning it has later in the treatise when it is used to name the first category. In other places, Aristotle uses substance and 'what it is' interchangeably. Cf. Top 108b20ff, where Aristotle refers to the category of substance as 'what it is.' Thus, the "account of the substance" means the account of what the thing is or the definition.

[148] Ὁμώνυμα λέγεται ὧν ὄνομα μόνον κοινόν, ὁ δὲ κατὰ τοὔνομα λόγος τῆς οὐσίας ἕτερος, οἷον ζῷον ὅ τε ἄνθρωπος καὶ τὸ γεγραμμένον· τούτων γὰρ ὄνομα μόνον κοινόν, ὁ δὲ κατὰ τοὔνομα λόγος τῆς οὐσίας ἕτερος· ἐὰν γὰρ ἀποδιδῷ τις τί ἐστιν αὐτῶν ἑκατέρῳ τὸ ζῴῳ εἶναι, ἴδιον ἑκατέρου λόγον ἀποδώσει. συνώνυμα δὲ λέγεται ὧν τό τε ὄνομα κοινὸν καὶ ὁ κατὰ τοὔνομα λόγος τῆς οὐσίας ὁ αὐτός, οἷον ζῷον ὅ τε ἄνθρωπος καὶ ὁ βοῦς· τούτων γὰρ ἑκάτερον κοινῷ ὀνόματι προσαγορεύεται ζῷον, καὶ ὁ λόγος δὲ τῆς οὐσίας ὁ αὐτός· ἐὰν γὰρ ἀποδιδῷ τις τὸν ἑκατέρου λόγον τί ἐστιν αὐτῶν ἑκατέρῳ τὸ ζῴῳ εἶναι, τὸν αὐτὸν λόγον ἀποδώσει (Cat 1a1-12).

[149] Cf. Shields, 1999, pp. 11-12.

means sentient being when it signifies the human being, but it means likeness of a sentient being when it signifies the statue. In contrast, Aristotle calls things univocal when they both share the same name and the same account of the substance signified by the name.[150] Thus man and ox are univocal insofar as animal is said of both and the name signifies the same 'substance' in each.[151]

Aristotle calls *things* equivocal or univocal whereas in English we usually apply the adjective 'equivocal' to *names*. Although it strikes the English ear as odd, there is no philosophical inconsistency in calling things equivocal in English as well. The relationship between the name and the things is same in both English and Ancient Greek. While Aristotle uses ὁμωνύμα as an adjective that applies to the relation of two things to a name that applies to them, we use equivocal as an adjective that applies to the relation of a name to two things it applies to; there is a logical connection between the English word equivocation and the Greek ὁμωνύμα. One can make the same distinction with our word univocal and the Greek word συνώνυμα. Aristotle will also refer to names as said equivocally (ὁμωνύμως λέγεται) or said in many ways (cf. PrA 32a20, Top 148a23, Meta 1035b1, GC 322b29-32).

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[150] It should be noted that the definition that Aristotle renders here of univocal is narrower than the use of the English term. Aristotle characterizes univocal things as when the definition of their substance, or what they are, is the same; not only when the meaning of the word is the same more generally. Aristotle appears to use this strict meaning of univocal in order show in what way terms can be ordered to one another under one category.

[151] One may ask why Aristotle uses two substances and not two accidents as examples of univocal naming. Perhaps the answer to this question lies in the fact that only substances have definitions and a 'what it is' strictly speaking.

Aristotle uses the name 'animal' to exemplify both univocal and equivocal things. Although univocal is opposed to equivocal, Aristotle can use the same name as an example of both because the distinction between an equivocal and univocal use of a word is relative. Just as the same number can be double or half, so can the same word be used equivocally or univocally. One can use 'chair' equivocally because it can signify 'something to sit on' and 'the head of a department,' but one can also use 'chair' univocally when it applies to two pieces of furniture in my office. Thus, Christopher Kirwan argues that "equivocation is primarily an activity: men equivocate, and if words do too, that is in the sense that they are the instruments by which men equivocate."[152] Properly speaking, names are only equivocal in use, and because man can use the same vocal sound in different ways, he can use the same name univocally or equivocally.

I.IV The Necessity of Equivocation

Aristotle claims that almost every name is polysemous (GC 322b29-33). Philosophical names such as substance, accident, being, one, before, cause, good, justice, and so on are all equivocal. It is also true that even common words like table, chair, bat, ball, bank, bark, and so on are equivocal. In fact, most everyday words in the English language have multiple meanings. It is rarer for a word to have a single meaning. Some technical words, such as the chemical compound barrelene, have only one meaning.

[152] Kirwan, 1979, p. 35.

Such words signify things that are so far removed from common experience that they are unlikely to take on new meanings.

What is the cause of the prolific equivocation in language? Aristotle goes so far as to argue that equivocation is necessary, that language without equivocation is impossible.

> [S]ince in discussion we cannot put forward things themselves, and so we use names as symbols instead of the things just like those who count with counting stones. Nevertheless, it is not the same, because names and the number of speeches are limited, while things are unlimited in number. One and the same speech or name must signify more [than one thing].[153]

In discourse, man cannot put forward the things themselves, and therefore he uses vocal sounds to signify the things. Aristotle claims that the number of things is infinite, but the number of names is finite.[154] If his starting points are true, then it follows that in every language man will naturally use the same word to signify many things.

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[153] ἐπεὶ γὰρ οὐκ ἔστιν αὐτὰ τὰ πράγματα διαλέγεσθαι φέροντας, ἀλλὰ τοῖς ὀνόμασιν ἀντὶ τῶν πραγμάτων χρώμεθα ὡς συμβόλοις, τὸ συμβαῖνον ἐπὶ τῶν ὀνομάτων καὶ ἐπὶ τῶν πραγμάτων ἡγούμεθα συμβαίνειν, καθάπερ ἐπὶ τῶν ψήφων τοῖς λογιζομένοις. τὸ δ' οὐκ ἔστιν ὅμοιον· τὰ μὲν γὰρ ὀνόματα πεπέρανται καὶ τὸ τῶν λόγων πλῆθος, τὰ δὲ πράγματα τὸν ἀριθμὸν ἄπειρά ἐστιν. ἀναγκαῖον οὖν πλείω τὸν αὐτὸν λόγον καὶ τοὔνομα τὸ ἓν σημαίνειν. (SE 165a6-14). It is striking that despite Christopher Shield's thorough treatment of homonymy in Aristotle overall, he could overlook this passage. Cf. Shields, 1999, p. 285.

[154] Things here must include universal natures. Otherwise, Aristotle's argument will fall victim to the objection of Hintikka (1959, p. 146; 1973, p. 17), who argues that Aristotle's argument only establishes the existence of common names, but not ambiguous names. Things can include universal natures, however, and if there is no established limit to the number of universal natures that man may desire to signify, then the argument establishes the existence of equivocal words equally well. Cf. Dorion, 1995, p. 208-209. Schreiber also reads Aristotle to be arguing that there are a limited number of names but there are an unlimited number of particulars that we wish to signify through universal natures. That is, Schreiber thinks that Aristotle's argument works to establish the necessity of universal univocal words but fails to establish the necessity of equivocal words. The problem with this reading is obvious, either Aristotle makes a critical error of confusing equivocal names with univocal names or he is not establishing the

Nevertheless, it is not clear that the number of things that one may wish to discourse about is unlimited. Aristotle denies the existence of an actual infinite in number or magnitude (Phys 202b30-208a25). Concerning the potentially infinite, he states, "one must not, however, take 'being in potency' as meaning that, [e.g.,] if this statue is able to be, this statue will also be, and so also the infinite is what will be in act" (Phys 206a19-23, trans. Coughlin modified). Marcus Berquist clarifies this passage by pointing out that, "in the numbers and divisions of a line, the possibilities are infinite. But this does not mean that the infinite is one of the possibilities."[155] The division of magnitude is potentially unlimited because one can never come to the smallest part, and numbers are potentially unlimited because there is no determined greatest.[156] There is not *actually* an infinite number of things, nor a line that has been *actually* infinitely divided into small parts. The number of things that we wish to signify is unlimited insofar as there is no determined limit to the things we may wish to signify just as there is no determined limit to how high one can count. Aristotle does not think there is an actually infinite number of things.

Another puzzle in Aristotle's argument is his claim that the number of names is necessarily limited. A long tradition of commentators have interpreted this passage as

existence of names that can be used in fallacies, but the context shows clearly that he is. Cf. Schreiber, 2003, pp. 11-18.

[155] M. Berquist, 2007, p. 106-107.

[156] Cf. Phys 206b4-20; Aristotle, 2005, n. 42, p. 63.

meaning that the limited number of words results from the limited number of letters or sounds.[157] Dorion takes this argument given by the commentators to be "evidently erroneous."[158] Nothing in the nature of vocal sounds limits their number because one can always—among other things—augment sounds to change a name.

Either Aristotle's argument is manifestly false, or one should read the argument in another way. Perhaps what he means is that the number of names is limited by how vocal sounds come to be names. No name is such by nature (DeIn 16a25). That is, all names are established through convention, and it is that fact that limits the number of possible names. One cannot simply create new words to signify whatever one wishes, but must have some means of establishing it conventionally. Moreover, often a new name must signify a nature that is not easily understood. In such cases, we use a name which signifies a nature with some connection or analogy to the nature we wish to signify. Since man names things as he knows them, and he knows many things through other things, it is natural for him to signify the same thing by the same name. According to Glen Coughlin, "our order of naming follows this order of knowledge. Because of this characteristic of our naming, we can often use the order among analogous names to better perceive the natural order in our knowing."[159] For instance, the name 'before' applies to what is prior in being because of its analogy to prior in time (cf. Cat 14a26-

[157] Cf. Ebbesen, 1981, I, p. 179.
[158] Cf. Dorion, 1995, n.5, p. 207: "evidemment erronee."
[159] Coughlin 2007, p. 5.

b24), and the name 'healthy' applies to medicine because of its connection with health in an animal. In such cases, there is an order in our naming because we know one thing through the another.[160] Thus Aristotle says, "knowledge is always chiefly about what is first, on which other things depend and through which they are named" (Meta 1003b17-18, trans. Sachs). In other words, since the way we come to know is progressive in the sense that we move from the more to the less known depending all the way on the former, naming is progressive also.[161] The ability to establish a conventional signification by repeating a vocal sound that has an analogous or connected meaning to what one wishes to signify limits the possible number of names. This part of the process of naming necessitates equivocation in every language.[162]

[160] Thus, Aristotle in the fourth book of the *Metaphysics* argues that there is one science of being even though 'being' is said in many ways. For 'being' is primarily said of substance, but it is also said of attributes of substance, ways into substance, destructions and privations of substance, and so forth. All other meanings of 'being' point toward the primary meaning of 'being.' They are known through the primary meaning of 'being' and accordingly, they are "named through" the primary meaning of 'being.' Subsequent 'beings' are naturally called by the same name just as it is natural to use the same name 'healthy' to apply to medicine, the body, and urine. Cf. Meta 1003a31-b19. Owen famously called a form of this primary meaning of an equivocal word upon which all other meanings have a logical dependence the "focal meaning." Cf. Owen, pp. 168-169.

[161] Cf. De Koninck, 1961, pp. 22-34, especially p. 25 and 32.

[162] It is for this reason that one should not be surprised when the five senses of the Greek word 'πρῶτον' that Aristotle lays out in the *Categories* apply equally to different English meanings of 'before,' just as the three meanings of 'τὸ ὑγιεινὸν' apply equally to three English meanings of 'healthy.' It is no accident that vocal sounds can have the same equivocal significations in different languages. The same could be said for the eight meanings of 'in' given in the *Physics* (210a14-25) or the five meanings of 'principle' given in the *Metaphysics* (1012b34-1013a23) and so on.

I.V What is the Fallacy of Equivocation?

Like most sophistical refutations, Aristotle does not explicitly define the fallacy of equivocation. (Ps) Thomas Aquinas characterizes this fallacy as "the deception coming from that which is one in name but many in significations."[163] The fallacy of equivocation results from the mixing up of the senses of a word in an apparent refutation. Since almost all words used in philosophy are equivocal, it is impossible to avoid using equivocal words in syllogisms. However, it is possible to avoid using words *equivocally* in the course of an argument. The fallacy of equivocation is the using of a name equivocally in an apparent refutation while appearing to use the name univocally. The sophist puts forward an argument in which three vocal sounds apply to the minor, middle, and major terms respectively. However, the sophist uses one of the vocal sounds with multiple meanings, and thus either the minor, middle or major term is equivocal. Consequently, there is either no genuine syllogism or no genuine contradiction.

There are two principal causes of sophistical refutations: the cause of the argument's failure to be a genuine refutation, and the cause of the argument's appearing to be a genuine refutation. The cause of the argument's failure to be a real

[163] *[F]allacia autem aequivocationis est deception proveniens ex eo quod unum nomen plura significat* ((ps) Aqiinas, 1976, c. 6).

refutation is the diverse significations of the word. The cause of the appearance of a refutation in the fallacy of equivocation is the likeness of speech.

To understand this fallacy better, let us consider Aristotle's examples. Aristotle gives four examples of sophisms taken from equivocation and shows by these four examples that the word equivocation sometimes occupies the role of middle term, and sometimes the role of the major term or minor term.

Aristotle's first example (SE 165b31ff):

1) Every grammar teacher learns (μανθάνειν) the things that their students recite to them.
   Every grammar teacher knows (μανθάνειν) the things that their students recite to them.
   Hence, those who know learn.

This example, likely taken from Plato's *Euthydemus* (275d-276c), plays on the various meanings of the Greek term 'learn' (μανθάνειν). In the argument, 'learn' is an ambiguous major term that means both 'understanding' through the use of science, and also 'acquiring science.' Thus, according to one sense of the word, the first premise is true because grammar teachers understand what their students recite to them. With this meaning, the conclusion follows necessarily from the premises of the argument as long as the major term 'learn' is also taken to mean 'understand' in the conclusion. Nonetheless, the argument does not likely conclude in a refutation because the interlocutor most likely agreed that those who know do not learn—in the sense of acquiring knowledge. It is unlikely that the interlocutor agreed that those who know

do not ‘learn’—meaning understand. The interlocutor conceded that it is the ignorant who learn because he hears the word ‘learn’ in the sense of acquiring knowledge. The sophist takes the word ‘learn’ in its other sense, meaning to understand. If the interlocutor cannot distinguish the two senses of the word, he will be obliged to concede that it is the learned who learn, although there is not a genuine contradiction.

In Aristotle’s second example (SE 165b34), the middle term is equivocal:

2) Everything that needs to be is good.
Evil things need to be. (For evil is often inevitable.)
Therefore, evil things are good.

This fallacy results from the middle term "things that need to be" (τὰ δέοντα) having a double meaning. On the one hand, ‘things that need to be’ may mean what ought to be or what is desirable which is usually not evil, and never evil as such. On the other hand, ‘things that need to be’ may mean what is inevitable, which is often evil. In this argument, as long as the premises are true then there is no syllogism because the first premise is true only using the former meaning, but the second premise is true only using the latter meaning. The middle term’s unity is merely apparent, and no conclusion follows necessarily. If one takes the same meaning in both premises, then one of the premises is surely paradoxical and not likely to be acceptable to one’s interlocutor. Consequently, either the premises are true, and the argument does not follow, or the argument follows, but one of the premises is only an apparent endox. Either way, the result is a sophistical refutation.

In addition, Aristotle characterizes the fallacy of equivocation as committing the mistake of making two questions one (SE 175b39-176a19). The questioner, for instance, puts forward the question, "Is it the case that things that need to be are good?" When the interlocutor answers 'yes,' the questioner effectively acts as if the interlocutor has granted two separate questions. He proceeds as if the interlocutor has conceded both that everything that should be is good and that everything that happens necessarily is good. In other words, any fallacy of equivocation may be reduced into the fallacy of making many questions one.

In accordance with these two examples, Aristotle points out that sometimes the equivocal term is only in premises because it is the middle term, and other times the equivocal term is in the conclusion because it is the minor or major term (SE 177a9-11). When the name used equivocally is the middle term, there are two ways to analyze the argument. Firstly, a person could say that the fallacy is only an apparent syllogism because there are not three but four terms: one of the terms is used with a double meaning. Secondly, a person could analyze the same refutation by holding that there are only three terms but that one of the premises is not a true endox, but only appears to be.

When the word used equivocally is the major or minor term, there are two analogous ways to analyze the argument. Firstly, one may analyze the fallacy by holding that the term which shows up in the conclusion does not have the same

meaning as the same term in the premise, and thus the conclusion does not follow. Secondly, one may hold that the term which shows up in the conclusion has the same meaning as the term in the premise, but that the conclusion does not contradict a previously held statement of the interlocutor. Christopher Kirwan sums up this characteristic of the fallacy of equivocation succinctly (1979, p. 36): "the upshot of this is that equivocation is a fault in a piece of reasoning when each of the meanings between which the reasoner equivocates justifies a part of his reasoning but no one of them justifies it as a whole."

Aristotle provides two other examples (SE 165b38ff) which mirror one another:

3) The sitting man is standing up.
   The one standing up has stood up.
   Thus, to sit and to stand are the same.

Or again:

4) The one recovering is healthy.
   The sick man is recovering.
   Thus, to be sick and to be healthy are the same.

The sophist argues for these absurd conclusions using a confusion between the past and the present. Aristotle clarifies the ambiguity in the fallacy by stating,

> For, "the sick man doing or suffering anything whatsoever" does not signify one thing, but sometimes [it signifies] he who is now sick (or sitting), and at other times he who was sick before. Albeit the man who is sick was recovering even

> while he was sick, but he is not healthy while he is sick, rather he is the man who was sick before, but not now.[164]

The adjectives 'sitting' and 'sick' can be taken in the present or in the past. The argument is equivocal in that it takes terms that apply in the present as applying in the past or vice versa.[165]

The last two examples reveal that the fallacy of equivocation may involve more ambiguities than only those resulting from Aristotle's description of equivocation given in the *Categories*. Not only do his examples of the fallacy include names signifying different kinds of things, they also include names that signify the same thing differently qualified, such as 'the sitting man' and 'the man who is sick.' 'The sitting man' signifies the same person but in one sense as the man who is sitting and in another way as the man who was sitting. The fallacy of equivocation may result from mixing up meanings of a term that signifies two different things or from mixing up the meanings of a term that signifies the same thing in different ways.

Presented as they are, Aristotle's examples appear quite insignificant and benign, posing no danger to the mind; their falsity is obvious.[166] Why does Aristotle use such simple examples? Aristotle unfolds the fallacy to us in clear examples to render its

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[164] τὸ γὰρ τὸν κάμνοντα ὁτιοῦν ποιεῖν ἢ πάσχειν οὐχ ἓν σημαίνει, ἀλλ' ὁτὲ μὲν ὅτι ὁ νῦν κάμνων [ἢ καθήμενος], ὁτὲ δ' ὃς ἔκαμνε πρότερον. πλὴν ὑγιάζετο μὲν καὶ κάμνων καὶ ὁ κάμνων· ὑγιαίνει δ' οὐ κάμνων ἀλλ' ὁ κάμνων, οὐ νῦν, ἀλλ' ὁ πρότερον (SE 166a2-6).

[165] Cf. Tricot, 1939, n. 5, p. 8.

[166] In fact, Aristotle uses the ambiguous term "things that need to be" as an example of being said in many ways that no one could fail to notice (Top 110b10).

nature. The purpose of using an example is to manifest something. The clearer the example is in its subject matter, the fewer obstacles there are that the student must overcome. With examples, difficulties can arise on the occasion of the matter. The similarity which is the principle of manifestation in the example must always be as manifest as possible. If Aristotle had given more difficult examples, the form of fallacy would have been far from obvious because it would have demanded too many distinctions.

In dealing with a difficult instance of the fallacy, a person can easily be fooled. He will be more vulnerable if he has not understood how this fallacy comes about in simpler instances. Other examples are more pernicious than Aristotle's examples:

5) What is before other things is in time.
   God is before creation.
   Therefore, God is in time.[167]

This example, taken from Saint Augustine's *Confessions*, reveals the deceptive power of the fallacy of equivocation. From this fallacious reasoning, one may easily come to the opinion that creation, and therefore God's existence, is impossible. In Aristotle's *Categories*, he lays down five senses of 'before.' In the first sense, the word 'before' can signify what is before in time (Cat 14a26-30), and in the second sense, it signifies what is before in being (Cat 14a30-35). The first premise of the example is true only in the first sense of 'before,' while the second premise is, according to Saint Augustine, true

[167] Cf. Augustine's description of a "carnal" question, 1960, ch. 11, p. 250 and Heisenberg, 2000, p. 78-79.

only in the second sense of 'before.' That is, God is not before creation in the sense that there was some time when God existed and creation did not exist. God is before creation in the sense that creation could not exist without God but God could exist without creation. The middle term of the argument has only ostensible unity and accordingly the conclusion does not follow.

What sort of equivocation is deceptive? While examining his third tool of dialectic (Top 105a20-33)—the tool of finding differences—Aristotle claims that discovering the difference between things that are far apart is evident (Top 108a5). He advises the dialectician, therefore, to practice distinguishing between things that are similar to one another. This principle also applies to the distinction between meanings of a word. When two meanings of a word are wholly unrelated, the equivocation is evident to everyone. In contrast, when the distinction between the senses of a name is subtle, the inexperienced are apt to be deceived. For instance, Aristotle argues that the different senses of justice are harder to distinguish than other equivocal words because they are near (σύνεγγυς) to one another (NE 1129a23-31). Without possessing a distinct knowledge of the various senses of a name, one is inclined to fall back on a prior and already familiar sense of that same word. In the fallacy taken from the *Confessions*, the reader is inclined to understand God's priority to creation as being prior in time. The meanings of 'before' are connected and consequently apt to be confused. Equivocation

is deceptive when the various meanings of the word are confused on account of their proximity with one another.

I.VI How to Untie the Fallacy of Equivocation

Aristotle claims that those who are inexperienced with the power of names are susceptible to the fallacy of equivocation (SE 165a16).[168] While anyone who does not know that it is possible for a name to bear multiple meanings will be vulnerable to the fallacy of equivocation, the knowledge that names can to bear multiple meanings will not make one impervious to the fallacy of equivocation. Aristotle claims that "the trick of [fallacies] from equivocation and speech occurs through being unable to distinguish what is said in many ways."[169] Only the ability to distinguish between different senses of particular names used in an argument will make one impervious to the fallacy of equivocation.

Having established that the defense against this fallacy lies in the answerer being able to distinguish between different meanings of a word, Aristotle divides the answerer's responses into two kinds based on whether the equivocal word is used only

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[168] Dorion notes that according to LS one meaning of δύναμις is "meaning." He argues however that the principal cause of the vulnerability to paralogisms, therefore, is not the rather benign knowledge of the meaning of a word, but the otherwise serious ignorance of the possibility of a word having several meanings. Cf. Dorion, 1995, n. 7, p. 209. Certainly, ignorance of the possibility that a word can have several meanings will make one susceptible to the fallacy of equivocation. However, the dialectician must have much more experience with the power of names to be able to avoid the fallacy of equivocation. He must be able to distinguish the meanings of words as they are used in argument.

[169] Ἡ δ' ἀπάτη γίνεται τῶν μὲν παρὰ τὴν ὁμωνυμίαν καὶ τὸν λόγον τῷ μὴ δύνασθαι διαιρεῖν τὸ πολλαχῶς λεγόμενον (SE 169a22-24). λὸγος here is apparently a fill in for amphiboly. Cf. SE also 168a25.

in the premises, or in the conclusion. When the question posed as a premise has more than one meaning in a dialectical disputation, Aristotle advises the answerer to respond: "in one sense, yes, and in another sense no." When the conclusion has a double meaning, the answerer should indicate that the conclusion does not contradict the thing (πρᾶγμα) previously granted but only the name (SE 177a16-34). Both of these solutions to the fallacy of equivocation require that the answerer is able to distinguish the various senses of names. If the answerer recognizes that a name used in an argument has multiple meanings, then the sophist cannot ensnare him. The true dialectician will ask, "what do you mean by this word?" The inexperienced adversary who is ignorant of the doctrine of homonyms, however, will consider words as having only one meaning and fall into the sophist's trap.

The ability to identify promptly exact meanings of words is difficult. Accordingly, Aristotle advises that the prudent answerer should also attack the sophist by explicitly accusing him of committing the fallacy (SE 175b1-8 and note *ad loc*). This tactic requires that the answerer is able to show that the fallacy of equivocation is possible. The easiest way to do so is through two kinds of examples. Every sophistical refutation must both fail to be a refutation and appear to be a refutation. A simple example most effectively demonstrates that equivocation corrupts argument while a more difficult example better illustrates that it can indeed be deceptive. Using this tactic does not involve distinguishing the exact meanings of a word, but merely accuses the

questioner of using more than one sense in an argument. This tactic offers the benefit of being always at hand in disputation. Interestingly, for Aristotle the appearances matter. He notes that it is important to be able to respond promptly when under interrogation, and thus to avoid the appearance of refutation (SE 175a17-30-b1). Articulating the confused senses of the equivocal name is the only way to destroy the sophism completely. Nevertheless, at times it is expedient simply to call an argument equivocal and to articulate what the fallacy of equivocation is, even if one cannot exactly articulate the different senses of the equivocal name.

I.VII The Places of Homonymy

Even so, to untie the fallacy of equivocation completely, one must identify the various meanings of a name used in an argument, and consequently, the dialectician must be able to distinguish all the senses of a name. Moreover, Aristotle says in the *De Caelo* that it is useful to distinguish the senses of names even when it makes no difference for the validity of an argument (DeCa 280b1-5). Confusion regarding the different senses of a name is harmful in philosophy even if no fallacy of equivocation results from the ambiguity. For a person will know better what he is stating if he clearly understands the various meanings of the words he uses (Top 108a19-20). When one considers a principle containing a word whose meanings he does not fully grasp, his apprehension of that principle is limited. Again, someone could form a valid argument in which the premises are true, and the conclusion follows necessarily, but he

will not be able to grasp the argument with full clarity without full knowledge of the meanings of the words it entails. It is imperative, therefore, that a philosopher is able to distinguish the different senses of words.[170]

As was noted above, Aristotle calls this ability the second tool of his dialectical art. In the first book of the *Topics*, Aristotle unfolds numerous places which aid us in perceiving that a word is equivocal and in identifying the different senses of that word. Let us examine four such places: those using opposites (Top 106a10-b28), those using inflection (Top 106b29-107a2), those using genera (Top 107a13-17), and those using more and less (Top 107b13-18).

Opposites:[171] One place to look to see if a name has diverse meanings is to see whether or not there are one or many contraries to that name (Top 106a10-21). "In most cases," a name used with one meaning will have only one contrary, and likewise the reverse.[172] For example, by noting that sharp is contrary to both flat and dull, one can detect that the word is equivocal. Similarly, 'many' is evidently equivocal because it is contrary both to one and to few. Aristotle uses this place to distinguish two senses of justice, noting that it is contrary to unfair as well as unlawful (NE 1129a23-b1).[173] It is

[170] The necessity of appreciating the different senses of a word applies equally well to the theologian. For what theologian could understand the Lord's words "I am Alpha and Omega, the first and the last, the beginning and the end" (Rev. 22:13), without knowing the various senses of beginning and end.
[171] Aristotle lays down four different species of opposites in the *Categories* (11b15-13a37).
[172] Aristotle does not think these places will apply universally. Therefore, he will sometimes qualify their universality (cf. NE 1129a24: ἐπὶ τὸ πολύ).
[173] While it may seem that injustice is not contrary to justice but the privation of justice, Aristotle calls justice contrary to injustice (cf. Cat 10b12-14).

clear then that if two things bear the same name but have different contraries according to that name, it is likely that the name is equivocal.

In another way, one can determine that a name has many senses by looking to see if there is a contrary to one thing but not to another which shares its name (Top 106a37-b4). For example, one can call a group of friends thick, but one does not call them thin. Nevertheless, a thick stick is contrary to a thin stick.[174] Similarly, it is clear that pleasure has multiple meanings because the pain of thirst is a contrary to the pleasure of drinking water, although there is no contrary to the pleasure of contemplating the conclusion of a geometrical demonstration. Again, loving as a matter of the will has the contrary of hating, but loving as a bodily activity has no contrary. One can detect equivocation by noticing that one instance of a word has a contrary, but that another instance of the same word does not.

In the *Categories*, Aristotle points out that there is a middle between some contraries, and there is no middle between other contraries (Cat 12a1-10). If two things share the same name, but one has an intermediary while the other does not, then the two things are equivocal. For instance, fine as opposed to coarse has no intermediary, but fine as opposed to crude or drab has the intermediary of ordinary. One can also use

[174] One can detect another meaning of thick by using the prior place and noticing that thick traffic is contrary to light traffic.

this place to detect equivocation by noticing that two intermediaries are different from one another.

Again, if the contradiction of a name has multiple meanings, then it has multiple meanings (Top 106b13-20). For instance, 'not to see' is said with more than one meaning: it can mean 'not to possess sight' or 'not to be engaging in the activity of seeing.' A person may say he did not see something and mean that he simply did not notice it, but a person may also use the phrase to signify blindness instead. Since 'not to see' is the contradictory term of 'to see,' and the former has multiple meanings, so too does the latter.

Inflection: Another place the dialectician can look for equivocation is to see if the inflected forms (πτώσεις) of a name are used in the same way as names with the same base. If the inflected form can be said in many ways, then so can the original. For instance, a luminous light may shine 'brightly' but a bright mind will not. Again, 'drying' and 'dry' may refer to a towel, but 'dryly' does not. Or one may use 'dryly' and 'dry' in reference to a remark, but not 'drying.' Again, one could say that the sculptor causes the sculpture, but one would not say that the marble causes the sculpture. This discrepancy is a sign that there must be more than one sense of cause. Such examples illustrate that if a name can be said of one thing, but another name with the same base cannot be said of that thing, then the name may be equivocal.

More or Less: Another place to detect equivocation is to see if the things signified by the word are comparable regarding more and less. Aristotle says that "everything univocal is comparable: either they will be equally called, or one will be more so."[175] Who is brighter, Albert Einstein or the sun? Which is softer, the light of the lamp or the down pillow? One cannot compare apples and oranges. When said of the pillow 'soft' must have a different meaning than when said of the lamp. If a name is said univocally of two things and they admit of more and less, then they will be comparable according to more and less.

Genera: Another place to look for equivocation is to see whether or not the uses of the name are in the same genera. In other words, a term will not generally be said in the same sense of things in different genera. Rigidity in wood is in the genus of sense quality, but rigidity in a man is in the genus of moral quality. In the *Nicomachean Ethics* (1096a23-29), Aristotle uses this same principle to show that good has multiple meanings. Since 'good' is in the category of substance, quality, quantity, and place, it is clear that 'good' is polysemous.

In sum, while the above places are not a complete taxonomy of all Aristotle's ways of uncovering equivocation, the above places illustrate his "sensible"[176] approach to distinguishing the senses of words. Aristotle seems to offer these places not to use as

[175] τὸ γὰρ συνώνυμον πᾶν συμβλητόν· ἢ γὰρ ὁμοίως ῥηθήσεται ἢ μᾶλλον θάτερον (Top 107b17-18).
[176] Cf. Smith, 1997, p. 92.

tools during dialectical dispute, but rather during investigations on one's own.[177] Moreover, he gives no indication that these places apply in all cases. He appeals to these places as norms—practical tools at the disposal of the dialectician that may or may not be applicable to a given word.

I.VIII Kinds of Equivocation

In the *Politics*, Aristotle claims that when one wants to understand something more fully, it is essential to understand how it develops from the beginning (Pol 1252a25-27). Accordingly, one can better understand equivocal names, if one can come to a universal understanding of the way in which they become so. Aristotle distinguishes equivocal names into kinds:

> [T]here are among equivocals, some very distant; some having some similarity; some near in genus or by analogy, whence they do not seem to be equivocals, though they are (Phys 249a23-25, trans. Coughlin).

Some equivocals are very distant while other bear some similarity or nearness to one another. As Plato says, "one should always be on guard concerning likenesses because they are most slippery things."[178] When things are like one another, they are harder to distinguish, and thus Aristotle says that likeness is a cause of deception. It follows that equivocals near to one another often appear to be one and the same and hence lend themselves to deceive.

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[177] Cf. Smith, 1997, p. 93.

[178] τὸν δὲ ἀσφαλῆ δεῖ πάντων μάλιστα περὶ τὰς ὁμοιότητας ἀεὶ ποιεῖσθαι τὴν φυλακήν (*Sophist* 231a6-8).

In line with Aristotle's distinction between equivocals being more or less distant, Aristotle (NE 1096b26-29) distinguishes equivocal by chance (ἀπὸ τύχης) from equivocal according to analogy (κατ' ἀναλογίαν).[179] Duane Berquist—who has done considerable work articulating the various kinds of equivocation—divides equivocal words into two parallel kinds: equivocal by chance and equivocal for some reason.[180]

> A name is equivocal *by reason* when there is a reason why the name has more than one meaning or when there is a reason why the same name is said of many things even though we do not have the same exact meaning in mind when saying it of each. Thus, in a name equivocal by reason, there is a connection or order among the many meanings."[181]

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[179] While here Aristotle divides equivocal names into two, in the passage from the *Physics*, he appears to divide into three: those being very distant, those having some similarity, and those being near. I take those being very distant as being equivocal by chance and those being near as being equivocal analogy or by reason. Perhaps, an example of the middle kind having some similarity is the word 'cardinal.' In some sense, it is accidental that 'cardinal' signifies both the cleric and the bird since there does not seem to be a necessary order between the two meanings and the equivocation will not naturally translate into different languages. Yet it appears that the two meanings of the 'cardinal' are not simply by chance on account of the cleric and the bird's similar donning of red. This sort of equivocal naming seems to be a result of a repeated use metaphor that has hardened into convention.

[180] Berquist's renaming of tradition's equivocal by analogy or analogous naming is sensible. For, in his own words, "Although many are accustomed to use name equivocal by reason and analogous name to mean the same, this is more *ex usu loquentium* than from the word analogous itself. For this word means proportional and whether we use that word to mean a likeness of ratios (as Euclid does) or to mean a ratio, it signifies only some kind or kinds of name equivocal by reason. If we want to understand name equivocal by reason universally and in all its kinds, it is necessary to separate the other kinds from those which are based on a proportion or ratio(s)." Cf. Berquist, 2015, p. 2. Nor was Berquist the first to do so. Cf. for instance, Cajetan, 2009, c. 2, n. 20, p. 22. Berquist's division of equivocals resembles to what Shields calls "discrete" and "comprehensive" homonymy. A homonymy is "discrete" if there "definitions have nothing in common and do not overlap in any way," but "comprehensive" if their definitions do not completely overlap. Cf. Shields, 1999, p. 11. Still, not every word that is equivocal by reason is a comprehensive homonymy. For example, no part of the meaning of before in time is not included in the meaning of before in honorability. There meanings do not overlap in any way. Nonetheless, the meanings are equivocal by reason as evidenced by the fact that the two meanings are used in Greek, Latin, and English. For this reason, and because it mirrors Aristotle's equivocal by chance/equivocal by analogy division, Berquist's division of equivocals is superior to Shield's.

[181] D. Berquist, 2015, pp. 1-2.

It is purely by chance that the name 'bat' is said of the wooden stick and the flying rodent. There is no natural order or connection to the meanings of this name. Interestingly, names such as bat that are equivocal by chance are rarely, if ever, equivocal in more than one language. In contrast, there is a reason why the name 'being' is said both of substance and accident, and accordingly, Aristotle gives an order to the two meanings (Meta 1003a31-b19). Naturally, words equivocal by reason share the same meanings in many languages.

Berquist articulates two primary ways in which names may be equivocal by reason. 1) Sometimes a name is said of two things—one retains the name as its own, and the other receives a new name. 2) Other times, a name is said of one thing, and we see a reason to apply that name to something connected with it yet still preserving its own separate meaning. In this case, the name equivocal by reason is moved over from one thing to another. Berquist's distinction between these two kinds of equivocation by reason is complete because either the name must be transferred to another thing which did not previously have that name, or the name must be applied with a new meaning to a thing which already had that name.

One can further divide these two subdivisions into two. 1a) Sometimes a common name is said *equally* of multiple things, but one of them is given a new name because it has something special about it, while the other/others which have nothing noteworthy retain the original name with a slightly restricted meaning.

A. For instance, 'finger' is first said of any digit on a hand. Since the thumb has the noteworthy aspect of being opposable, we give it a special name 'thumb' while the rest retain the name 'finger' now having another slightly more restricted meaning opposed to thumb.

B. 'Disposition' is first said of any quality by which one is apt to carry out some action, but since habit is noteworthy in so far as it is firm, we assign to it the special name 'habit' while the other dispositions retains the name 'disposition' (Cat 8b27-9b14).'

C. 'Scientific knowledge' (ἐπιστήμη) is first said of any demonstrated knowledge,[182] but since wisdom—that is, first philosophy—has the noteworthy aspect of being that by which we call someone wholly wise (NE 1141a12-13), we give it a special name 'wisdom' while other forms of demonstrated knowledge retain the name 'scientific knowledge.'[183]

D. 'Animal' first is said of every sentient thing, but since man has the noteworthy aspect of being rational, we give man the special name 'man' while other sentient things retain the name 'animal' with the slightly more restricted meaning of being opposed to 'man.'[184]

Another kind of equivocal naming happens when 1b) what is signified by name is found *imperfectly* in a thing, which is subsequently given a new name, while the other thing(s) retain the old name. As Berquist puts it, "when one thing has *simpliciter* or perfectly what is signified by the common name, and the other has only in an imperfect and qualified way the same, the former keeps the common name, and the latter is given a new name."[185]

A. For instance, sometimes people call kittens cats, but other times people oppose kittens to cats.

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[182] Aristotle calls wisdom a scientific knowledge (NE 1141b).
[183] Hence Aristotle sometimes distinguishes wisdom from scientific knowledge (NE 1139b).
[184] Another example may be the word 'car' which first includes trucks and then is opposed to truck.
[185] D. Berquist, 2015, p. 6.

B. A dead eye is still called an eye, but only equivocally (Meteor 390a10-15, GA 734b24-31).

C. Sometimes people say that a boy is a man but other times people oppose boy to man.

D. Aristotle sometimes calls an enthymeme a syllogism (Rhet 1355a8, Rhet 1357a32f, APr 70a10) but other times opposes enthymeme to the syllogism (Rhet 1355a14, Rhet 1357a18).

In both these instances of equivocation, we name things as we know them. We are aware of the general universal before the particular universal (Phys 184a16-b14), and common names are first applied generally and then applied more particularly to a subspecies.

The other primary way to name equivocally is to apply the name of one thing to a second—and in some way related—thing. This may happen in two ways. 2a) Sometimes the name is carried over by being generalized and drops part of its meaning. With a more general meaning, it is said of all the things of which it was said originally, but also of more things than before.

A. Aristotle uses 'scientific knowledge' to mean a certain and stable syllogized knowledge through the cause (APo 71b10-14) but then extends the name science by dropping 'through the cause' to extend to any certain and stable syllogized knowledge.[186]

B. 'Suffering' or 'undergoing' originally meant passive change for the worse or painful change. The word was then extended to mean any change including but not limited to that which is for the worse or painful.

[186] Cf. APo 78a22ff. Hence, demonstration '*propter quid*' and demonstration '*quia*' are distinguished by the former making one know scientifically in the strict sense and the latter making one know scientifically in the more general sense.

C. ‘Road’ originally meant stable even ground upon which to travel, but one may drop the material aspect of the meaning of road while keeping the notion of before and after thus making it applicable to our experience of coming to knowledge.

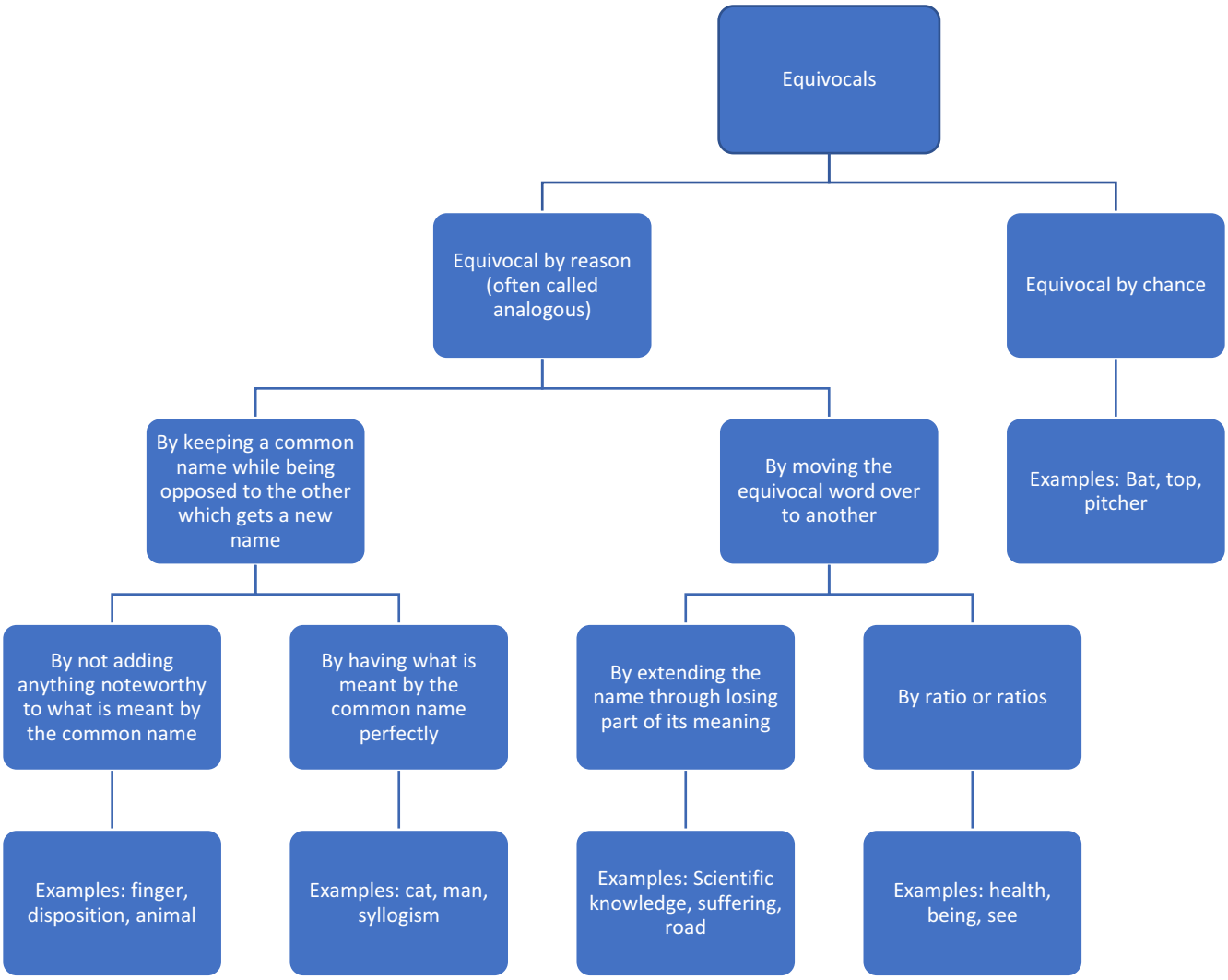
In another way 2b) the name is moved over by ratios or the order or relation of one thing to another. This way itself can happen in different ways.

A. For instance, one name is often said of two things because one of them has a certain relationship to the other. ‘Health’ is said of the body in the first sense of healthy, but it is moved over and placed on a diet because of the diet’s causal relation to health, and it is placed on one’s complexion because it is a result of health.

B. Sometimes, one name is said of two things by their having different relationships to the same thing. e.g., quality and quantity are both equivocally called ‘being’ because they each have a relationship to substance, but different relationships. Quantity is called ‘being’ because it is the measure of substance whereas quality is called ‘being’ because it is a disposition of substance.

C. Sometimes one name is said of two things because they have the same relationship to different things. For instance, mind : intelligible = eye : sensible, and so we might apply the name ‘see’ from the eye to the mind. Further in general : particular = whole : parts, and accordingly, we call the universal a whole and derive the name ‘particular’ from the name part.

The following chart lays down the principal divisions of equivocation given by Duane Berquist:



Conclusion

For Aristotle names are symbols of the undergoings of the soul which themselves are likenesses to things. Equivocal naming is a form of proper naming as opposed to metaphorical naming, and it is a necessary consequence of how we name and how we know. The fallacy of equivocation is the result of mixing up different senses of an equivocal word. Aristotle claims that one's inexperience with argument is a cause of one's vulnerability to sophistical refutations. In the case of the fallacy of equivocation

specifically, those who are unaware and inexperienced with the power of names are most susceptible to being fooled. Simply being aware that names can signify more than one thing is an insufficient defense against mistakes due to equivocation. Philosophic understanding and inquiry necessitate much more work. One must be able to distinguish between the different senses of words that are used in any argument to be impervious to the fallacy of equivocation. However, Aristotle does not leave us empty-handed. He supplies us with the places which aid us in perceiving that a word is equivocal and in identifying the different senses of that word. Moreover, a consideration of the kinds of equivocation enables us to understand how the process of equivocation comes about and hence to predict the various possible senses of words.

Appendix II: The Fallacy of the Accident

II.I Division of Fallacies Outside of Speech

The fallacy of the accident is the most problematic of all the fallacies in Aristotle's *Sophistical Refutations*. Edward Poste comments that the fallacy is an "ill-defined species," and that we would, "do well to drop it from the list and distribute its contents among other classes,"[187] criticizing Aristotle for "not speak[ing] very accurately."[188] Indeed a number of commentators have disparaged Aristotle's treatment of the fallacy of the accident. Louis-Andre Dorion finds it difficult to see how Aristotle's account suits his examples[189] and Sten Ebbesen criticizes Aristotle's description of the fallacy as "no masterpiece of clarity."[190]

Although Aristotle's account may rightly be criticized for its lack of clarity—the fallacy has about as many interpretations as it has commentators[191]—we would do well, if possible, to avoid disbanding Aristotle's fallacy of the accident and distributing its contents into the other listed fallacies. Aristotle considers the fallacy of the accident to be the most deceptive of all fallacies. He holds that the fallacy deceives even "men of scientific knowledge (ἐπιστήμων, SE 168b6)."[192] Aristotle obviously took this fallacy

[187] Poste, 1866, n. 14, p. 158. Cf. also Bueno, 1988, p. 8.
[188] Poste, 1866, n. 9, p. 157.
[189] Dorion, 1995, n. 58, p. 233.
[190] Ebbesen, 1981, I, p. 224. Cf. also Beuno, 1988, p. 9; Hamblin, 1970, p. 84.
[191] For a thoughtful but head-spinning romp through the history's many and varied interpretations of the fallacy of the accident, cf. Bäck, 2015, pp. 155-163.
[192] For Aristotle, scientific knowledge is the highest perfection of understanding about any given subject.

seriously, and his treatment of it should not be considered careless. A particular reading of (Ps) Thomas Aquinas' *De Fallaciis*[193] offers a unique account of the fallacy that allows Aristotle to be read in a consistent manner, distinguishes the fallacy from the other fallacies outside of speech, and accounts for Aristotle's examples. The fallacy of the accident can be understood as an apparent refutation with a defect in the use of the middle term where insofar as the middle term is connected with the minor term, it is accidentally connected with the major or vice versa. This reading is not without its own difficulties, but it does account for the fallacy's place in Aristotle's taxonomy and fits with his examples given in the *Sophistical Refutations.*

To unfold this thesis, I will first show how the fallacy of the accident is distinguished from the other fallacies outside of speech. Second, I will consider the different senses of accident that are used in Aristotle's logical works. Third, I will show what the defect is in every argument that commits the fallacy of the accident and give (ps) Thomas Aquinas' illuminating division of the fallacy into three subspecies according to this interpretation. Finally, I will offer a unique interpretation of why the fallacy of the accident does not violate Aristotle's "said of all" (*dictum de omni*) principle from the *Categories*.

[193] On the attribution of this text to Thomas Aquinas and other questions, cf. H. F. Dondaine in (ps) Aquinas, 1976, pp. 385-400.

II.II Senses of Accident

According to Aristotle, every fallacy fails to be a genuine refutation insofar as it falls short of the definition of refutation. He claims that "it is possible to reduce all the previously stated ways into the definition of refutation."[194] Let us refresh our memory with Aristotle's definition of refutation: "a syllogism with a contradiction of the conclusion."[195] That is, a refutation is a syllogism whose conclusion contradicts a previously granted proposition of one's interlocutor. The interlocutor is refuted when two propositions that he grants are in contradiction with one another. An argument is an apparent refutation, or a fallacy, in two cases. One, when it is only an apparent syllogism, and two, when it concludes in an apparent but unreal contradiction.

Aristotle does not initially make clear how he arrives at his taxonomy of fallacies when he provides his initial list. We will take the fact that every fallacy fails to be a genuine refutation insofar as it falls short of the definition of refutation to serve as the basis of Aristotle's confidence in the exhaustive nature of his taxonomy and help to clarify how the fallacy of the accident is distinct from the other fallacies outside of speech.

It is clear from the definition of refutation that a contradiction is proper to it, and from this one can already understand one fallacy from outside of speech. Namely, if an

[194] ἔστι γὰρ ἅπαντας ἀναλῦσαι τοὺς λεχθέντας τρόπους εἰς τὸν τοῦ ἐλέγχου διορισμόν (SE 168a20).
[195] ἔλεγχος δὲ συλλογισμὸς μετ' ἀντιφάσεως τοῦ συμπεράσματος (SE 165a2-3).

argument appears to contradict a proposition previously affirmed by the interlocutor—while not actually contradicting it—the argument commits the fallacy of ignorance of refutation.[196] For instance, the sophist Protagoras criticizes Socrates for admiring a poem of Simonides because the poem first says that it is difficult to become good while later saying that it is not difficult to be good. A poem, Protagoras says, should not contradict itself. Yet the poem only appears to contradict itself (*Protagoras* 338e-348c). In reality, the poem does not because to be and to become are not the same thing. It may be difficult to climb to the top of a mountain but is not difficult simply to stand at the top of a mountain. Difficulty in becoming does not contradict a lack of difficulty in being. Any argument that falsely appears to contradict a previously granted proposition of an interlocutor commits the fallacy of ignorance of refutation.

The other fallacies outside of speech are not as immediately evident. Since the definition of the refutation takes syllogism as its genus, it necessary to understand Aristotle's definition of syllogism to understand his meaning of refutation and thereby his meaning of fallacy. Aristotle defines syllogism as "an argument in which, from certain premises laid down, something else, other than the premises laid down, follows from necessity, by the premises being so."[197] If we take apart the definition and consider

[196] One should recall from the commentary that although every fallacy is in some sense an ignorance of refutation, there is also a subcategory of fallacy called ignorance of refutation, namely, those where there is an apparent but not a real contradiction of the answerer's position on the established problem (SE 167a21-35 and notes *ad loc*). Cf. also SE 168b17-21.

[197] συλλογισμὸς δέ ἐστι λόγος ἐν ᾧ τεθέντων τινῶν ἕτερόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει τῷ ταῦτα εἶναι (PrAn 24b18-20). Cf. also SE 165a1-3.

each part at a time, we will see how different fallacies can and do result. A syllogism is a speech in which:

1) From certain premises laid down,
2) Something else, other than the premises laid down,
3) Follows from necessity,
4) By the premises being so.

Since its connection to the fallacy of begging the question is so obvious, let's first take up the second criterion: something else, other than the premises was laid down. If the conclusion falsely appears to be different from one of the premises, the argument commits the fallacy of begging the question. Any argument that concludes with a proposition that is assumed in one of the premises does not satisfy the second criterion of the definition of syllogism, and therefore is not a true refutation.

The fallacy that follows from making several questions into one violates the first criterion: from certain premises being laid down. Aristotle asserts that someone falling into this fallacy does not understand the definition of proposition implied by certain premises being laid down (SE 169a6-7). For a proposition must predicate one thing of one thing. When a supposed premise conjoins two predicates, the conclusion appears to follow from premises that are in fact not premises at all because they try to say too much and by doing so violate the definition of proposition.

The third criterion—follows from necessity—is the part of the definition of syllogism that the fallacy of the consequent fails to meet. Such a fallacy occurs when the premise "if A, then B" is affirmed, and B is then affirmed, and A is inferred. Mellisus

argued for example that if the universe were infinite, then it would not have a beginning. The universe has no beginning and therefore is infinite. But this does not follow. For one could just as easily argue for many falsehoods. For instance, if Alcibiades is a father, he is a man, but Alcibiades is a man, and so he is a father. Yet he is not a father, although the premises are true. The conclusion does not, in fact, follow from the premises, but only appears to do so. Any argument that takes this form fails to meet the third criterion of the definition of syllogism and commits the fallacy of the consequent.

It is important to note in dealing with the fallacy of the consequent that Aristotle considers the fallacy of the consequent as part of the fallacy of the accident. He states, "the consequent is an accident, but it is different from an accident because it is possible to take the accident in one [thing] alone. For example, the yellow and honey are the same, and the white and swan. On the other hand, the [fallacy] from the consequent is always in several things."[198] According to Aristotle, the fallacy of the consequent is a certain kind of fallacy of the accident. The text suggests then that the two fallacies share the same defect—they do not follow necessarily from the premises. This provides our first clue to understanding the fallacy of the accident.

[198] τὸ γὰρ ἑπόμενον συμβέβηκε. διαφέρει δὲ τοῦ συμβεβηκότος, ὅτι τὸ μὲν συμβεβηκὸς ἔστιν ἐφ' ἑνὸς μόνου λαβεῖν, οἷον ταὐτὸ εἶναι τὸ ξανθὸν καὶ μέλι, καὶ τὸ λευκὸν καὶ κύκνον, τὸ δὲ παρὰ τὸ ἑπόμενον ἀεὶ ἐν πλείοσιν (SE 168b28-32).

One can also understand the fallacy of 'simply and in a certain respect' as a violation of the third criterion: follows from necessity. The conclusion of an argument violating this kind of fallacy does follow in a certain respect, but not simply as it appears to.[199] Accordingly, Aristotle holds that Meno's argument (*Meno* 80d-86e) violates this fallacy not because it does not follow in some way that I know what I don't know, but rather because it does not follow that I know simply what I don't know simply (APo 71a24-b9). Thus the fallacy of simply and in a certain respect violates the third criterion.

Aristotle claims that the fallacy of taking what is not a cause as a cause violates the fourth criterion: by the premises being so (SE 168b22-26).[200] The fallacy is a faulty reduction to the absurd where a "premise" that seems to lead to an absurd conclusion is deemed to be the premise responsible for the resulting absurdity. Yet in the argument, the said "premise" is not a genuine premise but merely appears to be. The faulty conclusion of the reduction does not follow "by the premises being so."

How does the fallacy of the accident violate the definition of refutation? In his discussion of its defect, Aristotle claims that there is no syllogism of the accident.

> [Fallacies] from accident are exposed when syllogism has been defined. For there must also be the same definition of refutation except that contradiction is added.

[199] Aristotle appears to characterize the fallacy of what is simply and what is in some respect as following by necessity but not actually contradicting (SE 168b10-12). I take it that these are two sides of the same coin. Either one can look at the fallacy as following from the premises, and it does not actually contradict a previously held statement or one can take that conclusion actually to contradict a previously held statement, but it merely appears to follow from the premises. Cf. also SE 169b10-12.
[200] For an example of this sort of fallacy, cf. 167b26-31.

> For a refutation is a syllogism of contradiction. Consequently, if there is no syllogism of the accident, there is no refutation. For if (C) must be when these (A) and (B) are, and (C) is white, then it is not necessary that it is white because of the syllogism. Moreover, if a triangle has angles equal to two right angles, but it happens accidentally to be a figure or an element or a principle, it is not necessary that a figure or an element or a principle [have angles equal to two right angles]. For the demonstration is not as figure or as principle but as triangle, and it is likewise even in other cases. If, therefore, a refutation is a syllogism, then there cannot be a refutation according to accident.[201]

While portions of this passage are obscure, at least two things are evident. For Aristotle, A) there is no syllogism of the accident because the fallacy of the accident does not follow necessarily, and B) there is no refutation of the accident because there is no syllogism of the accident. Our task then is to discover why the fallacy does not follow.

Based on the passage above, it may seem as though the fallacy of the accident is based on an argument the structure of which does not necessitate its conclusion. One example is clearly stated in the text:

1) All triangles have interior angles equal to two right angles.
   All triangles are figures.
   Therefore, all figures have interior angles equal to two rights.

The syllogism given by Aristotle does not follow; it is a corruption of the third figure syllogism Darapti. The proper conclusion should be that *some* figures have interior

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[201] Οἱ δὲ παρὰ τὸ συμβεβηκὸς ὁρισθέντος τοῦ συλλογισμοῦ φανεροὶ γίνονται. τὸν αὐτὸν γὰρ ὁρισμὸν δεῖ καὶ τοῦ ἐλέγχου γίνεσθαι, πλὴν προσκεῖσθαι τὴν ἀντίφασιν· ὁ γὰρ ἔλεγχος συλλογισμὸς ἀντιφάσεως. εἰ οὖν μὴ ἔστι συλλογισμὸς τοῦ συμβεβηκότος, οὐ γίνεται ἔλεγχος. οὐ γὰρ εἰ τούτων ὄντων ἀνάγκη τόδ' εἶναι (τοῦτο δ' ἐστὶ λευκόν), ἀνάγκη λευκὸν εἶναι διὰ τὸν συλλογισμόν. οὐδ' εἰ τὸ τρίγωνον δυοῖν ὀρθαῖν ἴσας ἔχει, συμβέβηκε δ' αὐτῷ σχήματι εἶναι ἢ πρώτῳ ἢ ἀρχῇ, ὅτι σχῆμα ἢ ἀρχὴ ἢ πρῶτον τοῦτό ἐστιν· οὐ γὰρ ᾗ σχῆμα οὐδ' ᾗ πρῶτον ἀλλ' ᾗ τρίγωνον ἡ ἀπόδειξις ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων. ὥστ' εἰ ὁ ἔλεγχος συλλογισμός τις, οὐκ ἂν εἴη ὁ κατὰ συμβεβηκὸς ἔλεγχος (SE 168a34-b5).

angles equal to two rights.[202] Using the same corrupt structure, one could reason that since all men are rational, and all men are animals, therefore all animals are rational. The structure of the premises simply does not necessitate the conclusion.

Nonetheless, this account cannot resolve all of the examples Aristotle gives. In some examples of the fallacy of the accident, there is no obvious structural defect.

2) The one who is approaching is not known to me.
   Coriscus is the one who is approaching
   Thus, Coriscus is not known to me.[203]

This example and others appear structurally sound.[204] Some other reason must be found why the conclusion does not follow.

We can now see why the fallacy of the accident is the most problematic of all Aristotle's fallacies. While the other fallacies neatly impinge on different parts of the definition of refutation, there is no clear reason from the text why the fallacy of the accident does not follow. Aristotle does claim, however, that there is no syllogism of the accident. Leonard Hamblin noted that the fallacy of the accident is "seldom understood" claiming as a cause that it is unclear what 'accident' means in relation to the fallacy.[205] Understanding and resolving the fallacy of the accident should turn on

[202] Cf. PrAn 28a10-2918, where Aristotle discusses the third figure syllogism and its defective mutations including one structured like argument 1) above.
[203] Cf. SE 179b1-4
[204] Cf. for instance, example 4) below.
[205] Cf. Hamblin, 1970, p. 84.

what Aristotle precisely means by the word accident (συμβεβηκὸς) in the fallacy of the accident.

II.III What is the Fallacy of the Accident?

Let us first distinguish the sense of 'accident' used in the fallacy of the accident from Aristotle's other meanings of the word.[206] The second tool (ὄργανον) of dialectic is the ability to distinguish different senses of a word (Top 105a24-25). This tool's most common place is the comparison of opposite meanings of a word as, for instance, one can distinguish the various meanings of sharp by its being opposed to both flat and dull (Top 106a9-40). If a term has more than one opposite, then it has more than one

[206] Still number of previous interpreters of this fallacy have failed to distinguish the various meanings of accident that Aristotle uses. Joseph, for example, describes the fallacy as occurring when a "subject has divers accidental predicates, i.e. predicates indicating attributes which are not commensurate with it nor essential to it; what is predicable of the subject may or may not be predicable of these accidents, and vice versa" (Joseph, 1916, p. 587). Joseph, therefore, interprets συμβεβηκὸς as signifying accident as a predicable and perhaps even accident as a predicament. For he does not distinguish the two. He fails to see that συμβεβηκὸς indicates accidental being or being *per accidens* as opposed to being καθ' αὑτό or *per se* as we will see below. Allan Bäck, who endeavors to distinguish the meanings, conflates the meaning of accident as a predicament and the meaning of accident as a predicable. He states, "On the usual view, 'accident' is understood in the sense of 'accidental predication': what is not said of but is in a subject; the relationship holding when the predicate is not in the essence of the subject [Cat. 2; An. Po. I.4]" (Bäck, 2015, p. 151). Cf. Bäck also pp. 146-148. Bäck correctly negates the possibility that the fallacy of the accident is based on accidental predication, but then wrongly equates accidental predication with the accidental categories or predicaments. Later, Bäck conflates accident as a predicament with being *per accidens*: "being *per accidens* does not have being in its own right but through another" (2015, p. 153). Yet Aristotle (Meta 1026a33-b2) lists accidental predicaments (i.e., beings that do not exist in their own right but through another) as examples of beings *per se* when he distinguishes being *per se* from being *per accidens*! Cf. also Cat 1a20-b6. Bäck does properly identify the fallacy of the accident as using the meaning of accident as opposed to *per se* or καθ' αὑτό being. So, while I agree with his assessment that the fallacy of the accident has to do with being *per accidens* and that (ps) Thomas Aquinas' account of the fallacy is probably the closest to Aristotle's meaning, he does not properly distinguish the meanings of accident that Aristotle uses and thus, his account of what Aristotle means by accident in the fallacy of the accident remains vague.

meaning corresponding to its opposites. Let us consider the different words to which accident is opposed, and accordingly lay out the various meanings of accident used by Aristotle.

1. Accident as opposed to property. Aristotle defines one sense of accident—accident as a predicable—in the first book of the *Topics*. He defines it as follows, "accident is that which is no one of these; it is neither definition, nor property, nor genus, yet it belongs to the thing, and is able to belong and not belong to any one [thing]" (Top 102b4-6). An accident in this sense is an attribute that does not belong to the essence of the subject, as does definition or genus, and is not a necessary effect of the subject's essence, as is a property. Rather, the accident both belongs to the subject and is able not to belong to the subject. It merely happens to belong.

Accident in this sense is a predicable. A predicable is one of the five ways in which a name can be univocally and universally said of a subject. Accordingly, this sense of accident can only be understood as a kind of relation between a predicate and its subject.[207] Thus the same term may be one predicable in one statement, but another predicable in another. 'Having interior angles equal to two right angles' is a property of triangles, but an accident of figures. 'Triangle' is a species of rectilinear plane figure, but a genus of isosceles.

[207] Boethius takes the word accident in the fallacy of the accident to be referring to the accidental predication in a broad sense of anything that is outside of the definition of the subject. Cf. Gelber, 1987, pp. 111-112. For an interpretation similar to Boethius', cf. Botting, 2011, p. 274 and p. 268.

Accident as a predicable is opposed to genus, species, and specific difference insofar as it does not signify anything in the definition of the subject. It is opposed to a property insofar as it does not necessarily belong to the subject and is not caused by what the subject is, while a property will necessarily be in the subject and an effect of what the subject is. Thus, accident in this sense is opposed to the other four predicables insofar as it is not a necessary predicate. More specifically, we consider this meaning of accident as opposed to property because property is the predicable that is closest in meaning to accident while still being opposed.

The meaning of accident in the fallacy of the accident cannot be the meaning of accident opposed to property because Aristotle's examples use property and genus predication.[208] For instance, in example 1) given above, having interior angles equal to two right angles is a property of triangle, and figure is the genus of triangle. Therefore, neither of the premises in the example use accidental predication in the sense of accident as opposed to property.

2. Accident as opposed to substance. In the second chapter of the *Categories,* Aristotle divides all beings—said without intertwining—into substances and accidents. Aristotle distinguishes four ways of being through a crisscrossing of two divisions: in and not in an underlying, and said of and not said of an underlying (Cat 1a20-b8). A primary or

[208] Bäck also denies that 'accident' in the fallacy of the accident refers to accidental predication (2009, p. 102).

individual substance—like this man or this horse—is what is neither in an underlying nor said of an underlying. A secondary or universal substance—like man or horse—is said of an underlying but is not in an underlying (Cat 2a10-19). A particular accident—like this knowledge of grammar or this white—is in an underlying but is not said of an underlying, and lastly, a universal accident—like science or white—is both said of an underlying and in an underlying.

Accident in this sense is a kind of predicament.[209] It is an accident that is considered absolutely. That is, this accident does not express the relation of a predicate to its subject, but rather it is a form of being. Thus, habit is an accident in the sense of a predicament even if it is predicated of virtue—in which case it would not be an accident in the sense of a predicable. Accident in this sense then can be considered as opposed to substance.

Once again, this sense of accident cannot be the meaning of accident used in the fallacy of the accident. For many valid syllogisms are constructed using predicamental accidents as both subjects and predicates. Consider the following argument:

1) Every habit which leads to happiness is a habit of acting according to right reason.
   Virtue is a habit which leads to happiness.
   Virtue is a habit of acting according to right reason.

None of the terms in the argument are primary or secondary substances, and yet the syllogism is valid and true. Requiring all arguments to be constructed with at least

[209] Predicament is the traditional Latin name for the categories or σχήματα τῆς κατηγορίας.

some substance terms would render invalid much of Aristotle's philosophical reasoning. Moreover, many of Aristotle's examples of the fallacy of the accident involve terms in the category of substance such as,

2) Coriscus is different from Socrates.
   Socrates is a man.
   Therefore, Coriscus is different from a man.[210]

Aristotle, in explaining this example, says that Socrates "is a man accidentally" or translating in a more literal way "just happens to be a man."[211] Clearly, the meaning of accident as opposed to substance cannot serve as our basis of understanding the fallacy of the accident because many good syllogisms use only accidental terms, while examples of the fallacy can use substance terms.

3. *Accident as opposed to subject.* Aristotle sometimes uses συμβεβηκὸς to mean simply predicate regardless of which kind of predicate it is, accidental or essential (cf. for instance, APo 73b8-10; Top 152a33-37; Top 152b25-29). Michael of Ephesus claims that this is the meaning of accident in the fallacy of the accident.[212] In other words, according to his position, Aristotle could have just as well call the sophism the fallacy of the predicate. There are two reasons this interpretation cannot be so. First, it seems clear that all of the examples of the fallacy turn on something *accidental* in a more common sense. Take for instance example 4): Socrates' being different from Coriscus is accidental

[210] εἰ ὁ Κορίσκος ἕτερον ἀνθρώπου, αὐτὸς αὑτοῦ ἕτερος· ἔστι γὰρ ἄνθρωπος (SE 166b32-33).
[211] διὰ τὸ συμβεβηκέναι οὗ ἔφησεν ἕτερον εἶναι, τοῦτον εἶναι ἄνθρωπον (SE 166b33-35).
[212] Cf. Michael of Ephesus, 1898, p. 37.23-26. Cf. also Leone Gazziero, 2015, pp. 334-341.

to that fact that he is a man. Second, as we will see below, this interpretation does not consider that Aristotle characterizes the sophists as being concerned with accidental being or being *per accidens* (Meta 1026b14-21).

4. Accident as opposed to through itself (καθ' αύτό). In the *Metaphysics*, Aristotle distinguishes between being καθ' αύτό—being through itself as such—and being *per accidens*, or more literally through just happening (κατὰ συμβεβηκὸς).

> 'Being' is said, on the one hand, according to accident, and on the other hand through itself. According to accident, for instance, we say that the just one is musical, and man is musical and the musical one is a man—resembling those saying that the musical one builds because it has just happened to the builder to be musical or [it has just happened] to the musical one to build (for that this is this signifies that this has happened to that)—and so too in the examples mentioned: for when we say a man is musical and the musical one is a man or the white is musical or this is white, in the first cases we say that both are accidental to the same thing, and in the latter that it has happened to a being, while with 'the musical is a man' [we are saying] that the musical has happened to this. (So too it is said that the not-white is because that to which it is accidental is.) Consequently, those are said according to accident in this way either for the reason that both belong to the same being, or that it belongs to that being, or that that of which it is predicated, to which it belongs, is.[213]

[213] Τὸ ὂν λέγεται τὸ μὲν κατὰ συμβεβηκὸς τὸ δὲ καθ' αύτό, κατὰ συμβεβηκὸς μέν, οἷον τὸν δίκαιον μουσικὸν εἶναί φαμεν καὶ τὸν ἄνθρωπον μουσικὸν καὶ τὸν μουσικὸν ἄνθρωπον, παραπλησίως λέγοντες ὡσπερεὶ τὸν μουσικὸν οἰκοδομεῖν ὅτι συμβέβηκε τῷ οἰκοδόμῳ μουσικῷ εἶναι ἢ τῷ μουσικῷ οἰκοδόμῳ (τὸ γὰρ τόδε εἶναι τόδε σημαίνει τὸ συμβεβηκέναι τῷδε τόδε), – οὕτω δὲ καὶ ἐπὶ τῶν εἰρημένων· τὸν γὰρ ἄνθρωπον ὅταν μουσικὸν λέγωμεν καὶ τὸν μουσικὸν ἄνθρωπον, ἢ τὸν λευκὸν μουσικὸν ἢ τοῦτον λευκόν, τὸ μὲν ὅτι ἄμφω τῷ αὐτῷ συμβεβήκασι, τὸ δ' ὅτι τῷ ὄντι συμβέβηκε, τὸ δὲ μουσικὸν ἄνθρωπον ὅτι τούτῳ τὸ μουσικὸν συμβέβηκεν (οὕτω δὲ λέγεται καὶ τὸ μὴ λευκὸν εἶναι, ὅτι ᾧ συμβέβηκεν, ἐκεῖνο ἔστιν)· – τὰ μὲν οὖν κατὰ συμβεβηκὸς εἶναι λεγόμενα οὕτω λέγεται ἢ διότι τῷ αὐτῷ ὄντι ἄμφω ὑπάρχει, ἢ ὅτι ὄντι ἐκείνῳ ὑπάρχει, ἢ ὅτι αὐτὸ ἔστιν ᾧ ὑπάρχει οὗ αὐτὸ κατηγορεῖται (Meta 1017a7-22).

Thomas Aquinas points out that this distinction should not be confused with the distinction between substance and accident.[214] Here Aristotle is recognizing different sorts of being according to accident, but all involve a link between two kinds of beings that are only accidentally one. Being is said according to accident A) when an accident is linked with substance, like the musical is man or B) when a substance is linked to an accident, like the man is musical or C) when one accident is linked to another accident like the just is musical.

Notice the link between the two accidents that happen together is not a link through predication, but a link through the two beings that accidentally exist together. Aristotle is not describing an accidental relation of subject and predicate, but an accidental union in reality. This is not to say that a predication cannot result from the accidental unity as when Aristotle mentions that some say the musical one builds the house, but this predication is a result of the more fundamental accidental unity in reality of the builder and the musician.

More importantly, from this passage we can conclude an important implication of καθ' αὑτό: it is an attribute that belongs to the thing as such. It is not the musician as such who builds the house, but the builder who happens to be a musician. If one says that the builder built the house, that is καθ' αὑτό because it is the builder *insofar as he is*

[214] Cf. Aquinas, 1961, bk. 5, l. 9, n. 885.

a builder that builds the house. It is this sense of καθ' αὑτό that is opposed to the meaning of accident used in the fallacy of the accident.

Aristotle holds that the meaning of accident in the fallacy of the accident is opposed to being καθ' αὑτό.[215] Considering Plato's position, Aristotle comments,

> Whence, in some way, Plato did not speak badly when he said that sophistry is concerned with non-being. For the sophists' arguments, I say, are especially about with what is accidental; [The question, for instance,] if the musical and the grammatical are the same or different; and if musical Coriscus and Coriscus are the same; and if everything that is but has not always been has come to be, so that if the musical one has become grammatical, then the grammatical one has become musical; and so on with other such arguments. For what is accidental seems to be near to non-being.[216]

Aristotle is clearly saying that the fallacy of the accident is based on accidental being insofar as it may be expressed in a statement. For a statement such as the musical becomes grammatical expresses what is close to non-being. It is not the musical as such that becomes grammatical. For musical and the man who is able to be grammatical are only one *per accidens*, and so it is the man who is able to be grammatical who becomes grammatical καθ' αὑτό.

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[215] Cf. SE 170a4: καὶ ἀντὶ τοῦ καθ' αὑτό ὁ παρὰ τὸ συμβεβηκός.

[216] διὸ Πλάτων τρόπον τινὰ οὐ κακῶς τὴν σοφιστικὴν περὶ τὸ μὴ ὂν ἔταξεν. εἰσὶ γὰρ οἱ τῶν σοφιστῶν λόγοι περὶ τὸ συμβεβηκὸς ὡς εἰπεῖν μάλιστα πάντων, πότερον ἕτερον ἢ ταὐτὸν μουσικὸν καὶ γραμματικόν, καὶ μουσικὸς Κορίσκος καὶ Κορίσκος, καὶ εἰ πᾶν ὃ ἂν ᾖ, μὴ ἀεὶ δέ, γέγονεν, ὥστ᾽ εἰ μουσικὸς ὢν γραμματικὸς γέγονε, καὶ γραμματικὸς ὢν μουσικός, καὶ ὅσοι δὴ ἄλλοι τοιοῦτοι τῶν λόγων εἰσίν: φαίνεται γὰρ τὸ συμβεβηκὸς ἐγγύς τι τοῦ μὴ ὄντος (Meta 1026b14-21).

II.IV Species of the Fallacy

To further clarify this interpretation of the fallacy, let us consider the three modes or species of the fallacy according to (ps) Thomas Aquinas. The modes are three places or topics (τόποι) from which the sophist can derive numerous fallacies of the accident. Aquinas describes the first mode as follows:

> The first mode results from this: namely, it proceeds from the accident to the subject. or vice versa. For example, I know Coriscus, Coriscus is coming, and therefore I know the one coming. But this does not follow since coming and Coriscus are one *per accidens*, and not *per se*."[217]

The first species of the fallacy of the accident comes from assuming that what is true of an accident—as opposed to property—is also true of the substance or vice versa. In this case, "Coriscus" acts as a middle term and insofar as "I" know Coriscus, it is accidental to his coming. Insofar as Coriscus is known by me, he just happens to be coming.

The second mode of the fallacy of the accident according to Aquinas occurs when what belongs to the higher in universality is attributed to something lower on the Porphyrian Tree.

> The second mode is when something that belongs to the superior is concluded of the inferior, or vice versa. For example, man is an animal; animal is a genus; therefore man is a genus. But this does not follow because the higher and the lower are in some way one *per accidens*, although in another way they may be one *per se*. [218]

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[217] *Primus modus provenit ex eo quod proceditur ab accidente ad subiectum, vel e converso sicut hic: cognosco Coriscum. Coriscus est veniens. Igitur cognosco venientem. Non sequitur: quia veniens et Coriscus sunt unum per accidens, et non per se* ((ps) Aquinas, 1976, c. 12). This example is given by Aristotle at SE 179a30-b5.
[218] *Secundus modus est quando illud quod convenit superiori concluditur in inferiori, vel e converso, sicut hic: homo est animal, et animal est genus: igitur homo est genus. Non sequitur: superius enim et inferius aliquo modo sunt unum per accidens, licet alio modo sint unum per se* ((ps) Aquinas, 1976, c. 12).

Since a subject and a predicate are on two different levels of universality—even if the predicate is in the definition of the subject or vice versa—they cannot be in every way identical. The sophist can manipulate this difference in order to make it appear as though the two terms are necessarily connected when they are not. Man is an animal, but animal is a genus. Therefore, man is a genus. In this fallacy, it is accidental to animal insofar as it is said of man, that it is a genus.

The third mode of the fallacy of the accident comes about when what is predicated of a predicable property is assumed to belong to the subject of that property.

> The third mode comes when you proceed from the species to the property or vice versa. For example, man is risible, but risible is a property, and therefore man is a property. Or in this way: man is a species, but the risible is a man. Thus the risible is a species. But this does not follow because risible and man are not in every way the same according to definition, and therefore risible is not the same, and in some way, one is related to the other *per accidens* and is extraneous, and on account of this it is not necessary that whatever is true of one is true of the other.[219]

In the third mode of the fallacy of the accident, a property, in the predicable sense, is predicated of a subject and from this predication, the fallacy may result. Although the property is convertible with the subject, it is not part of the essence of the subject. For instance, man and risible are convertible but the definition of risible is not identical to

[219] *Tertius modus provenit quando proceditur a specie ad proprium, vel e converso, sicut hic: homo est risibilis. Sed risibile est proprium: igitur homo est proprium. Vel sic: homo est species: risibile est homo; ergo risibile est species. Non sequitur: quia risibile et homo non sunt omnino idem secundum definitionem, et ideo aliquo modo unum se habet ad alterum per accidens et extraneum, et propter hoc non est necesse quod quidquid verificatur de uno, verificetur de altero* ((ps) Aquinas, 1976, c. 12).

the definition of man, and so there will be different attributes that can be said of risible—such as it is a property—that cannot be said of man. It is accidental to risible that it is a property insofar as it is said of man.

II.V "Said of All" Principle

This interpretation is not without its difficulties. It seems that syllogism 8) may be taken to violate Aristotle's so-called "said of all" principle for the predicamental order given in the *Categories*.

> If something is predicated of another as of an underlying, the predicates that are said of what is being predicated will also be said of what is underlying, as "man" is predicated of this man, but "animal" of man. Thus, "animal" will be predicated of this man also because this man is both a man and an animal.[220]

Whatever predicate is said of another predicate as of an underlying will be said of whatever that predicate is said of as an underlying.[221] So, if man is an animal, and Socrates is a man, then Socrates is an animal. However, relation is said of half of four and half of four is said of two. It appears that either two must be a relation or Aristotle's "said of all" principle is incorrect or imprecise. Aristotle's hands appear to be tied. Either he keeps the "said of all" principle in which case many false conclusions follow

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[220] Ὅταν ἕτερον καθ' ἑτέρου κατηγορῆται ὡς καθ' ὑποκειμένου, ὅσα κατὰ τοῦ κατηγορουμένου λέγεται, πάντα καὶ κατὰ τοῦ ὑποκειμένου ῥηθήσεται· οἷον ἄνθρωπος κατὰ τοῦ τινὸς ἀνθρώπου κατηγορεῖται, τὸ δὲ ζῷον κατὰ τοῦ ἀνθρώπου· οὐκοῦν καὶ κατὰ τοῦ τινὸς ἀνθρώπου τὸ ζῷον κατηγορηθήσεται· ὁ γὰρ τὶς ἄνθρωπος καὶ ἄνθρωπός ἐστι καὶ ζῷον (Cat 1b10-15).

[221] Some commentators claim that Aristotle also implies this principle in the *Prior Analytics* (24b26-30). Cf. for instance, Bäck, 2015, p. 150. However, the interpretations of the passage are varied (cf. Smith ,1989, p. 111). While I do not find such an interpretation out of the question, it does not seem to be the most likely reading of the passage. Whether or not the *Posterior Analytics'* passage should be read in imply the "said of all" principle, it is clearly stated in the *Categories*.

from true premises as in syllogism 8), or he abandons the "said of all" principle and many valid syllogisms like syllogism 7) no longer follow. Taking the latter course would seriously undermine his form of reasoning in other works.

Nevertheless, Aristotle's "said of all" principle must be read in light of what else is said in the *Categories*. Aristotle clearly had some restrictions to his "said of all" principle. He claims that sometimes a predicamental accident is predicated of a substance, but the account of that accident cannot be predicated of the substance (Cat 2a27-34).[222] Moreover, the *Categories* treats only of strictly univocal terms while equivocal terms are excluded from the treatment. Aristotle's definition of univocal may help us to understand that the fallacy of the accident is not a violation of his "said of all" principle.

> Things are called univocal whose name is common and the account of the substance according to the name is the same, as for instance, both man and ox [are called] animal. For man and ox are called by the common name animal, and the account of the substance is the same. For if someone gives an account of the 'what it is' for each of them to be animal, he will give the same account.[223]

Univocal is used here in a strict sense. Not only does the meaning of the term need to remain the same, but "the account of the substance according to the name" must be common. As long as the middle term in the argument is said in this strict sense of

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[222] A number of commentators have noted that the rule does not hold in this case (cf. for instance, Philoponus, 1898, p. 38).

[223] συνώνυμα δὲ λέγεται ὧν τό τε ὄνομα κοινὸν καὶ ὁ κατὰ τοὔνομα λόγος τῆς οὐσίας ὁ αὐτός, οἷον ζῷον ὅ τε ἄνθρωπος καὶ ὁ βοῦς· τούτων γὰρ ἑκάτερον κοινῷ ὀνόματι προσαγορεύεται ζῷον, καὶ ὁ λόγος δὲ τῆς οὐσίας ὁ αὐτός· ἐὰν γὰρ ἀποδιδῷ τις τὸν ἑκατέρου λόγον τί ἐστιν αὐτῶν ἑκατέρῳ τὸ ζῴῳ εἶναι, τὸν αὐτὸν λόγον ἀποδώσει (Cat 1a6-12).

univocal—said according to the account of the substance (λόγος τῆς οὐσίας) or according the account of what it is (λόγον τί ἐστιν)—and as long as the major term is predicated of the middle term by the same strict univocity, then whatever is predicated of the middle term will be predicated of the minor term.

Consequently, the "said of all" principle stands as long as the terms in the premises are predicated according to their strict univocity. In my interpretation, this will ensure that the middle term is not accidentally related to the major term insofar as it is related to the minor term because the account of the substance of the middle term will be the same in both cases. When discussing how to untie the fallacy of the accident, Aristotle claims that all the same predicates belong only to "whatever is one and undifferentiated according to substance."[224] Whenever the middle term is used in this strictly univocal sense, then the fallacy of the accident can be avoided, and the "said of all" principle stands.

Nevertheless, this understanding of the "said of all" principle appears to pose another difficulty to my understanding of the fallacy of the accident. For it reduces the fallacy to a violation of the univocal use of the term. In other words, this reading of the fallacy of the accident makes it a form of the fallacy of equivocation where the use of the middle term is not used in the strict sense of univocal. Aristotle, however, prohibits the

[224] τοῖς κατὰ τὴν οὐσίαν ἀδιαφόροις καὶ ἓν οὖσιν ἅπαντα (SE 179a35).

fallacy of accident or any fallacy outside of speech from being equated with the fallacy of equivocation (SE 179b38-180a30 and notes *ad loc*).

This reading, however, does keep the two distinct fallacies separate insofar as the fallacy of equivocation is based on a meaning of 'equivocation' (ὁμωνυμία) that is not identical to the word's meaning in the *Categories*. As was noted in the appendix on equivocation, Aristotle's third and fourth examples reveal that the fallacy includes terms which signify the same thing in both cases but under different con-significations (cf. SE 165b39-166a7 and notes *ad loc*). These terms would not be equivocal in the sense of the *Categories* (1a1-5) because this sense of equivocal term must signify *different* things—not the same thing with different con-significations. Again, Aristotle appears to say that the second species of the fallacy involves mistaking a customarily used metaphor for a proper name (SE 166a16-17 and note *ad loc*). Metaphors, however, are not equivocal in the sense of the *Categories* since they are not proper names and do not actually have two different meanings. In general, Aristotle uses the word equivocal in the *Sophistical Refutations* to describe the mistake of mixing up the different senses of one word, but in the *Categories*, Aristotle uses the word equivocal to exclude universal words that cannot be genera said equally of different species in a Porphyrian Tree. The ultimate distinction upon which the fallacy of the accident is based is not a distinction between the different senses of a word, but a distinction between accidental and

καθ' αὑτό being.[225] In short, although the middle term in the fallacy of the accident violates the strict univocity of the *Categories*, the fallacy of the accident cannot be reduced to the fallacy of equivocation.

Conclusion

Aristotle holds that the fallacy of the accident deceives even "men of scientific knowledge (ἐπιστήμων)" (SE 168b6). He obviously took this fallacy seriously, and his treatment of it should not be considered careless. Although he has been criticized for lack of clarity and consistency, there is a consistent way to read Aristotle's treatment of the fallacy that distinguishes it from the other fallacies outside of speech while accounting for his examples. Follow (ps) Thomas Aquinas, the fallacy of the accident can be understood as an argument with a defect in the use of the middle term where insofar as the middle term is connected with the minor term, it is accidentally connected with the major or vice versa. Only this sense of accidental can account both for the fallacy and explain how Socrates "just happens to be a man." Detecting the fallacy requires that one intuits when the middle term is being used in this illegitimate way. My reading is not without difficulties because in order for the resolution of the fallacy

[225] This is not to say that a specific example of the fallacy of the accident will not involve equivocal or ambiguous speech. In example 5), the premise "Everything in the material world is changing", can be taken in more than one sense. However, the ultimate cause of the example's deceptive nature is not the various senses of "everything," but the distinction between things in the material world and the things in the material world as changing. Cf. Albertus Magnus I, 1890, tr. 2, c. 4, pp. 563-564 and SE 165b25 note *ad loc*. This, of course explains why some commentators wanted to reduce the fallacy of the accident to the fallacy of equivocation although Aristotle repeatedly denies that this can be done. Cf. for instance, SE 179b38ff. Cf. also Micheal Ephesus, 1898, p. 59, 21-23 and Ebbesen, 1988, I, p. 226.

not to violate the "said of all" principle from the *Categories,* one might equate the defect of the fallacy to a form of equivocation—an equation that Aristotle prohibits. Nevertheless, this interpretation of the fallacy does leave room for a possible resolution to this difficulty and offers a consistent reading.

Glossary

ἀγωνιστικός-competitive 165b11, 174a12, 175a1, 1360b22, 1361b21, 1413b9

(ὁ) ἀγωνιζόμενος- a competitor, 172b35

ἄδοξος-unendoxic, a disreputable opinion. Opposed to ἔνδοξος; 183a15, 176a31, 174b17

ἀναιρέω-do away with, 178b14; Aristotle uses this verb to express one reaction of the questioner to a sophistical argument. As opposed to distinguishing the senses of a statement or showing that an argument does not follow, a questioner may "do away with" one of the premises of the argument. "To do away with" a premise is to argue that it is false and thus not accept it in dialectical disputation. Cf. SE 178b12-19.

ἀντίφασις-contradiction

ἀντιστρέφω-convert 167b2, 50b25, 31a27, 14b11 as reciprocal

ἀπάτη-trick 174a29

ἄπειρος-unlimited 167b13

ἁπλῶς-simply, generally

ἀποδεικτικός, ή, όν- demonstrable 73a23

ἀπόδειξις-demonstration 73a25

ἀπόφανσις-statement "A statement is either side of a contradiction, a contradiction is an opposition of which there is no middle according to itself, and a part of a contradiction is, the one, the saying of something about something, the other, the denying of something about something." 72a11, Coughlin trans.

ἀπόφασις-denial 17a25-36

ἄτοπος-strange 170b14

ἀπορία-perplexity 182b33

ἀπορεῖν-to be perplexed 182b34ff

ἀρχή-beginning, principle

ἀσυλλόγιστος-unsyllogistic, 77b40, 91b23

γνώμη-judgment. 1395a11 (sg., 1394a22) Cf. also footnote for passage at 176b18.

διαίρεσις- distinction or division. 171a19 When this word is used to name the fallacy of composition and division it is translated as division such as at 177a34. However, when the word's verbal form is used to signify the act by which one makes unties a fallacy with a distinction it is translated as distinguish. See the following.

διαιρέω-distinguish see Pol.1295a8, while the primary meaning of the verb is to divide 96b15, it seems to mean distinguish in 168b9 and though out chapter 7. Every division is a distinction but not every distinction implies a division. Divide implies some whole and distinguish does not. For instance, we can distinguish being from non-being, but there is not whole to divide into the parts of being and non-being. 175a20 Distinction, therefore, is a more universal term that holds division as one of its species.

διακείμενον-intransitive 166b14

διαλέγω- to dialogue, discuss, practice dialectic. 154a34, 176a13, 159a7

διάνοια-thought 170b14ff More specifically, I understand this thought to be the result of thinking. See Hippocrates G. Apostle's translation of Posterior Analytics pg. 317

δίδωμι-grant, concede

διορισμός-definition (I would prefer to translate this as definition but I have yet to find any evidence for this meaning in Aristotle outside of the text at hand 168a23.) However, Aristotle generally uses ορισμός for definition 6a18, 8a29 and διαιρεσις division 16a12.

διορίζω-define 73a27

δύναμαι-is able 169a32

δύναμις-ability, power

ἔλεγχος-refutation

ἐναντίος-contrary, opposite 24a25, b10: The word may have the technical meaning given in to it in dialectic meaning question requiring the answer to commit to one of

two contradictory premises. It is the question is A B or not B. The answer of such a question would thus form the premise of a dialectical—or sophistical—syllogism.

ἔνδοξος-endox Top.100b21, 165b8, cf. EN1145b5, Rh.1355a17.

ἕξις-condition, habit

ἐπιχείρημα- dialectical syllogism, See Topics 162a16, 174b29

ἐπιχειρητέον- one must syllogize dialectically, See Topics 120b8, 174b31. Coughlin at 101a30 translates ἐπιχειρεῖν as to take in hand but the etymology does not apply so well in all instances.

ἐπιχειρέω-attempt 179b21

ἔργον-proper activity 183a39, 165a26ff. Aristotle does not define ἔργον. Plato's Socrates offers an account of ἔργον that seems consistent with Aristotle's use of the word: "the ἔργον of a horse or any other such thing, is either what someone does with it alone or with it best." Republic 352e.

ἐριστικός-contentious 165b8, 100b23-101a5, 171b4-172b9

ἐρώτησις-question

θέσις-thesis. "I call a "thesis" of an immediate syllogistic principle what one cannot show and which it is not necessary for one who is to learn something to have, but what is necessary for one who is to learn anything to have." 72a14 [trans. Coughlin].

κυρίως-properly, 166a16ff, 176a38

κατάφασις-affirmation 17a25-36

λαμβάνω-take, assume

λόγος-argument, account, proposition, speech, phrase 24a16,

μέθοδος-investigation

ὄνομα-name, word

οὐσία-substance 173b5-6

ὁμοιοσχημοσύνη-common-form 170a15.

ὁμώνυμος-equivocal, 1a1

ὅρος-definition Top.101b39: ἔστι ὅ. λόγος ὁ τὸ τί ἦν εἶναι σημαίνων. 169a21

ὅπερ ἐστί-what it is. 3b36, 73b8, 120b23

παράδοξος-paradox, Aristotle uses the word synonymously with ἄδοξος. Cf. 172b10 and note ad loc.

παραλογισμός-fallacy 164a21. Note that in the *Topics* this word is opposed to a sophistical refutation and takes on a more specific meaning. In the *Topics* the word signifies fallacies that are determined to one kind of science. In the course of the *Sophistical Refutations*, Aristotle uses the word more generically to include any fallacy.

παρεξέλεγχος- side refutation, 176a24, 181a21, 112a8

πάσχειν-to undergo 178a13

πάσχον-undergoing 166b14

πῃ-in some respect 49a8

πειραστικός-testing

ποιεῖν-to make or do. When the word is clearly signifying the category, such as at 178a13, it is translated as to act upon.

ποιοῦν-acting upon 166b14ff

πρᾶγμα-thing or subject. In 165a8 and 175a8 it is opposed to λόγος and ὄνομα and is therefore translated as thing. In 171b8ff and 169b23ff, it has the meaning of a subject of a discipline.

πραγματεία-work 165a37, 100a18

πρότᾶσις-premise, proposition 24a16, 169a8 172b37

συλλογίζομαι-syllogize 40b30, 68b16, 79b30, 42a39

συλλογισμος-syllogism

συλλογιστικός-syllogistic

συμβαίνω-happen/happen accidentally, as a participle it is rendered accident "falling together"

συμπέρασμα-conclusion 30a5, 42a5, 155b23, 71b21 170a28

συνάγω-infer Rhet 1357a8, 1395b25, Meta 1042a3, Pol 1299b12

συνώνυμος- synonym at 167a24. The word usually means univocal in Aristotle, see 1a5, however he does use it to mean synonym, see 1405a1

στέρησις-privation

τόδε τι-this something

τὸ διὰ τί- the "why"

τόπος-place. The Greek word is τόπος which literally means place. Obviously here the meaning is not place in its first sense but in the extended sense using in the Aristotle's logical bearing its name: Topics. That is, a rule for choosing a dialectical proposition most appropriate to refute a given opinion. The subject of the Topics are the dialectical places and the subject of the Sophistical Refutations are the sophistical places.

τρόπος-way: Although our word mode is closer to the Latin *modus*, the translation of τροπος by 'way' has the advantage of implying order. τρόπος, however, literally means turn. In a certain respect, it is closer to our idea of perspective or point of view. Different τρόποι require a different turn of mind.

φίλερις-strife-lover 171b26

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